Vol. X NOVEMBER, 1899 No. 11

The National Geographic Magazine

AN ILLUSTRATED MONTHLY

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CONTENTS

		PAGE
THE ALASKAN BOUNDARY. With twelve maps.	HON. JOHN W. FOSTER, *Ex-Secretary of State.*	425
LIFE ON A YUKON TRAIL. With illustrations.	ALFRED PIERCE DENNIS, *Professor of History in Smith College.*	457
THE RATIONAL ELEMENT IN GEOGRAPHY. With diagrams.	WM. M. DAVIS, *Professor of Physical Geography in Harvard University.*	466
EDWARD ORTON, LL. D.		474
NATIONAL GEOGRAPHIC SOCIETY.		474
GEOGRAPHIC LITERATURE.		475
GEOGRAPHIC MISCELLANEA.		479

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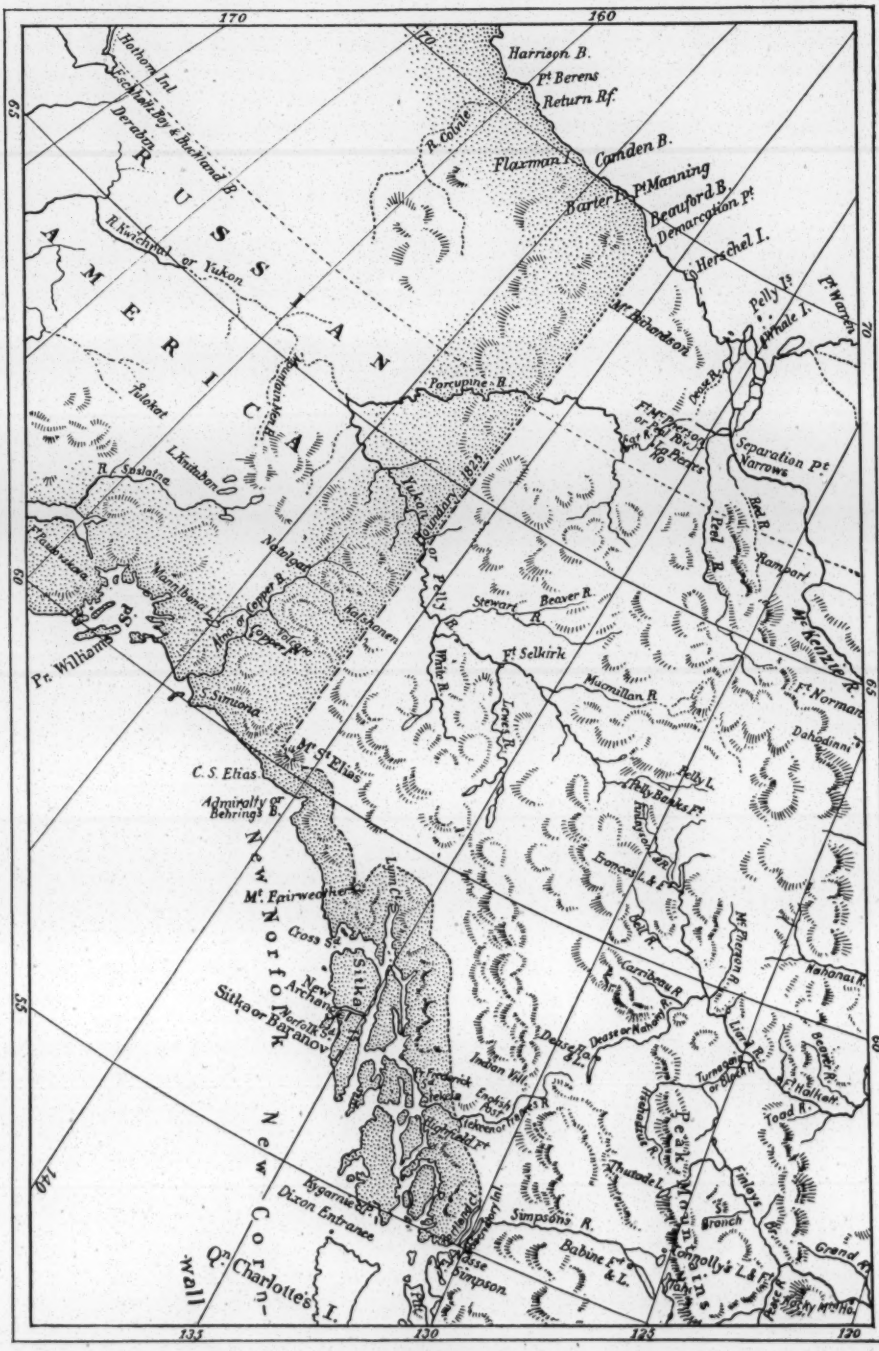
170
160
Harrison B.
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Demarcation Pt
Herschel I.
Pelly Is.
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Admiralty or Behrings B.
Mt Fairweather
Cross Sd
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New Archangel
Norfolk Sd
Sitka or Baranov I.
New Norfolk
Indian Vill.
Prince Frederick Sd
English Bay
Tokeen or Freels R.
Highfield Ft
Wrangell
Dixon Entrance
Simpsons R.
Babine Ft & L.
Fraser R.
Peace R.
Rocky Mts
Dease R.
Dease or Nelson R.
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Mt Baker
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THE
National Geographic Magazine

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THE ALASKAN BOUNDARY

By Hon. JOHN W. FOSTER,
Ex-Secretary of State

In the letter of the President of the Geographic Society inviting me to prepare a paper for THE NATIONAL GEOGRAPHIC MAGAZINE, he expressed a desire that I should discuss the Alaskan boundary, because it was a subject that most deeply concerns our people and the paper would be a timely contribution toward its proper consideration. In accepting the invitation, I feel that I must confine my presentation of the topic to the facts accessible to any student of the events of the period and avoid all reference to pending negotiations.

Happily, however, the material at hand for an accurate understanding of the subject is abundant and within reach of the inquirer. Its history had its inception three-quarters of a century ago; yet few negotiations among nations of such a date are accompanied by so great a mass of concurrent documents and facts to explain the motives and objects had in view by the interested parties, and to make apparent the understanding of these parties as to the effect of the negotiations after their conclusion. The Alaskan boundary is fixed by the treaty of 1825 between Russia and Great Britain, and every step of the anterior negotiations was carefully recorded at the time, and the seventy or more years following the celebration of the treaty are marked by repeated acts of the contracting parties and those claiming under them, explaining their interpretation of that instrument.

The treaty of 1825 grew out of the issuance by the Emperor of Russia of an imperial ukase in 1821, the purport of which,

briefly stated, was (1) a claim by Russia to exclusive jurisdiction on the high sea extending 100 miles from the coast of Asia above latitude 45° 50′ north and from the northwest coast of America above latitude 51° north; and (2) a prohibition to all foreign vessels to land upon or trade with the natives on any part of the coasts indicated.* This ukase brought forth a prompt and vigorous protest from both the United States and Great Britain, which was soon followed by negotiations between Russia and the two latter governments. It was early made known that Russia was prepared to withdraw its claim to exclusive jurisdiction in the Pacific ocean and would not insist upon its territorial claim to the coast of America below latitude 55°.† As the United States was advancing no serious claim to the territory north of that line, it found little difficulty in reaching an accord, and a treaty between Russia and the United States was signed April 17, 1824, nearly a year before an agreement was reached with Great Britain.

The chief object had in view by Great Britain in its protest and subsequent negotiations was to secure the withdrawal by Russia of her claim to exclusive jurisdiction in the Pacific ocean. At that period Great Britain was the rising power of the world in maritime commerce, the United States being its next competitor, and it made good use of the latter to aid in bringing about this withdrawal. At that day the vast territory of North America lying between the Rocky mountains and the Pacific ocean above latitude 55° was almost a *terra incognita*, and, with the immense areas to the east of the mountains still unoccupied except by a few trading posts, the country was held in little estimation by Great Britain. A few navigators had skirted the coast and enterprising American traders had held some intercourse with the Indians living immediately on tidewater, but none but the Russians had penetrated any distance inland. Only one British trading post was established in this region west of the Rocky mountains, on the line of 55°, and that 120 miles from the ocean, and there was not one above that line.‡

But we are not left to infer from these historical facts what was the ruling motive and object of Great Britain in opening and prosecuting negotiations with Russia, for these are explicitly stated in the instructions given by the Secretary for Foreign

* Fur Seal Arbitration Papers, 1893, vol. iv, p. 370, for full text of Russian ukase.
† Ib., p. 390. ‡ Ib., p. 383.

Affairs, George Canning, to the British negotiators. At the very inception of the negotiations he directed the attention of the first negotiator, Sir Charles Bagot, to "the extravagant assumption of maritime jurisdiction" as the essential point to be adjusted, and as Russia was prepared to waive her pretensions, the mode and degree of disavowal was to be so made as to least offend the national dignity of Russia.* It was therefore determined that it would be made more easy for Russia to retire from its maritime claim under cover of a treaty of limits. This is made clear in the instruction given by the British Secretary for Foreign Affairs, December 8, 1824, to Sir Stratford Canning, who had succeeded Mr Bagot in the negotiations. He says: †

"The whole negotiation grows out of the ukase of 1821. So entirely and absolutely true is this proposition that the settlement of the limits of the respective possessions of Great Britain and Russia on the northwest coast of America was proposed by us as a mode of facilitating the adjustment of the differences arising from the ukase by enabling the court of Russia, under cover of the more comprehensive arrangement, to withdraw, with less appearance of concession, the offensive pretensions of that edict.

"It is comparatively indifferent to us whether we hasten or postpone all questions respecting the limits of territorial possession on the continent of America, but the pretensions of the Russian ukase of 1821 to exclusive dominion over the Pacific could not continue longer unrepealed without compelling us to take some measure of public and effectual remonstrance against it.

"You will . . . declare without reserve that the point to which alone the solicitude of the British government and the jealousy of the British nation attach any importance is the doing away (in a manner as little disagreeable to Russia as possible) of the effect of the ukase of 1821."

Near the close of this instruction, which was quite lengthy, Secretary Canning, impressed with the importance of the main object, repeats himself in these words:

"It remains only in recapitulation to remind you of the origin and principles of this whole negotiation.

"It is *not* ‡ on our part essentially a negotiation about limits.

"It is a demand of the repeal of an offensive and unjustifiable arrogation of exclusive jurisdiction over an ocean of unmeasured extent. . . .

"We negotiate about territory to cover the remonstrance upon principle." §

With this object in view and under these instructions, the negotiations were initiated at St Petersburg. It will not be possible to follow them in all their details, which are set forth in

* Ib., 405. † Ib., 446. ‡ The italics appear in the original. § Ib., 448.

Prepared in the Office of the U.S. Coast and Geodetic Survey, Treasury Department.

MAP No. 1

SIR C. BAGOT'S PROPOSALS, 1824

the published correspondence of the British negotiators with the foreign office and of the Russian negotiators with their ambassador in London. I can only give the leading features. It having been determined that the treaty of limits should be agreed upon as a cover to the more essential stipulation to be contained in it, to wit, the disavowal of the maritime jurisdiction, the negotiators, in the first instance, addressed themselves to a fixation of the east-and-west line, or, more particularly, to the point on the northwest coast of America which should limit the possessions of the two governments. From the first moment the boundary was broached Russia had indicated that it would rest its claim to territory on the line of latitude 55°, being the limit fixed by the Emperor Paul in the charter of 1799 to the Russian American Company, and which had never been objected to by Great Britain.*

Sir Charles Bagot, however, in the first instance, proposed "a line drawn through Chatham strait to the head of Lynn canal, thence northwest to the 140° of longitude"† (see map No. 1). This line was rejected by the Russian negotiators, and, at the request of Mr Bagot, they submitted a counter-proposal, which was in effect the same as that suggested in the first instance above mentioned, the line of latitude 55°; but "as the parallel of 55° would divide Prince of Wales island," they proposed to start the boundary line at the southern extremity of that island, and thence "follow Portland channel up to the mountains which border the coast."‡ The Russian proposal was met by a second proposition from Sir Charles Bagot, to wit, "a line traced from the west toward the east along the middle of the channel which separates Prince of Wales and Duke of York islands from all the islands situated to the north of the said islands until it touches the mainland."§ This was likewise rejected, and he then made a third and final proposal of "a line drawn from the southern extremity of the strait called 'Duke of Clarence sound' through the middle of this strait to the middle of the strait which separates Prince of Wales and Duke of York islands from all the islands lying north of those islands, thence toward the east through the middle of the same strait to the mainland."‖

This last British proposition was rejected by the Russian negotiators in a paper of some length, in which they set forth the situation of the parties in interest, and why it was impossible for Russia to modify its proposal. They show that the parties whose

* Ib., 390, 412. † Ib., 424. ‡ Ib., 427. § Ib., 428. ‖ Ib., 430.

interests were involved were, on the British side, the Hudson's Bay Company, which was pushing its posts across the Rocky mountains towards the coast, and the Russian American Company, which was in possession of the islands and maintaining a profitable trade with the natives on the mainland, and that unless the latter was protected by a strip of the coast on the mainland, that company would be without a support [*point d'appui*], and would be exposed to the competition of establishments on the mainland which it was their purpose to exclude.* The motive of the Russian negotiators in insisting upon a strip of the coast is also shown in the report of M. Poletica, one of the Russian plenipotentiaries, to the ministry for foreign affairs of the earliest conferences with Mr Bagot, in which he said the Russian American Company "had mainly in view the establishment of a barrier at which would be stopped, once for all, to the north and to the west of the coast allotted to our American company, the encroachments of the English agents of the . . . Hudson's Bay Company" (M. Poletica to Count Nesselrode, November 3, 1823).

On the other hand, the main purpose of the British plenipotentiary in the particular negotiation above referred to was to secure for British traders a foothold on the Pacific ocean as far above the latitude of 54° 40′ as possible. In reporting the result of his conferences to the British foreign office, he says: "Our chief objects were to secure . . . the embouchures of such rivers as might afford an outlet for our fur trade into the Pacific."† He further states that his object in presenting the line of Clarence strait was to "preserve uninterrupted our access to the Pacific ocean," and he adds that the line of the Portland channel "would deprive His Britannic Majesty of sovereignty over all the inlets and small bays lying between latitude 56° and 54° 45′, . . . of essential importance to its [Hudson Bay's] commerce."‡

The negotiators were brought face to face with their conflicting claims, the one side insisting that it must have a strip of territory on the mainland in order to keep the Hudson's Bay Company from the ocean opposite their islands, and the other insisting that the Hudson's Bay Company must have possession of such part of that territory and the inlets as would afford it access to the ocean. Mr Bagot informed the Russian negotiators that he had made his "ultimate proposition," and, being told by them

* Ib., 428, 430. † Ib., 424. ‡ Ib., 425, 429.

that the Emperor's final decision was "that they must continue to insist upon the demarcation as described by them," he announced that he should "consider the negctiations as necessarily suspended," and they were accordingly broken off.*

Count Nesselrode sent to the Russian ambassador in London an account of the negotiations and their abrupt termination, a copy of which was handed to Secretary Canning. In this report he insists that Russia had gone to the extreme of liberality in its concessions to Great Britain. These were, first, an agreement to disavow the maritime jurisdiction; second, to yield its claim to territory from latitude 51° to 54° 40′; third, to grant free access to the British posts in the interior by the rivers which may cross the Russian strip on the mainland; and, fourth, to open Sitka to British trade. The count, after showing that his country was only seeking to hold what its enterprise had gained, and, contrasting the spirit of the two nations, "we wish to keep and the English company wish to obtain," referred to the point upon which the negotiations were broken off—the strip of territory on the mainland—and impressed upon the ambassador the necessity which impelled the Emperor to insist upon it, and then made the following emphatic declaration: "Russia cannot stretch her concessions further. She will make no others, and she is authorized to expect some concessions on the part of England."†

The expectations of Russia were not to be disappointed, for in the month following Secretary Canning informed the Russian ambassador in London that Sir Charles Bagot would be instructed "to admit, with certain qualifications, the terms last proposed by the Russian government." The qualifications related to the width "of the strip of land required by Russia on the continent," to the boundary in the vicinity of Mt St Elias, and the free use of the rivers, seas, straits, and waters which the limits assigned to Russia would comprehend.‡ In his instructions to Sir Charles Bagot, Secretary Canning said: "There are two points which are left to be settled by Your Excellency:" the first, "the eastern boundary of the strip of land to be occupied by Russia on the coast," and, second, the right of resorting to the territory and waters conceded to Russia.§

The second negotiations were mainly confined to the second point. In the interval a treaty had been signed between Russia and the United States, whereby the latter had secured the right

* Ib., 425. † Ib., 401. ‡ Ib., 432. § Ib., 433.

for ten years to frequent "the interior seas, gulphs, harbours, and creeks upon the coast [north of 54° 40'] for the purpose of trading with the natives of the country." Bagot was instructed to obtain a like privilege for Great Britain, but to secure a longer term than ten years if possible.* He thereupon made a demand for the privilege, not for a term of ten years, but *forever* as to the coast along the strip of land (*lisière*) up to latitude 60° and as to Sitka, and for ten years as to all the other Russian territory to the north. Russia refused the demand on the ground that such a perpetual concession was repugnant to all national feeling and was inconsistent with the very idea of sovereignty, and the negotiations were again broken off.†

Thereupon Sir Charles Bagot was recalled and Sir Stratford Canning, one of the ablest British diplomatists of the present century, was transferred from Washington to St Petersburg, and the negotiations were again renewed. Sir Stratford Canning was instructed to recede from the demand made by his predecessor, and to accept the language of the Russo-American treaty as to the use of the territorial waters of the strip of land (*lisière*). This left only the eastern boundary of this strip to be definitely fixed. It was from these instructions to Canning that I have quoted the liberal language in which occur the expressions: "It is *not* on our part essentially a negotiation about limits," and "We negotiate about territory to cover the remonstrance upon principle." In this connection it is proper to note that in the early stage of the negotiations, when Sir Charles Bagot reported that Russia had indicated latitude 55° as the line of division, Secretary Canning replied: "It does not appear . . . how far the line proposed . . . was intended to run to the eastward. If to the Rocky mountains, it obviously would be wholly inadmissible by us;" and later in the instruction he says:

"It would . . . be expedient to assign, with respect to the mainland southward of that point [the head of Lynn harbor], a limit, say, of 50 or 100 miles from the coast, beyond which the Russian posts should not be extended to the eastward. We must not on any account admit the Russian territory to extend at any point to the Rocky mountains."‡

* Ib., 434. † Ib., 439.

‡ Ib., 419, 420. Attached to Secretary Canning's instruction, from which the above quotation is taken, is a letter to him from the deputy governor of the Hudson's Bay Company (Ib., 421), showing that the suggestion of a strip 50 to 100 miles in width originated with that company. He says: "From a want of accurate knowledge of the courses of the rivers or ranges of mountains, it is difficult to suggest any satisfactory boundary in the interior of the country in question, and (if consistent with your

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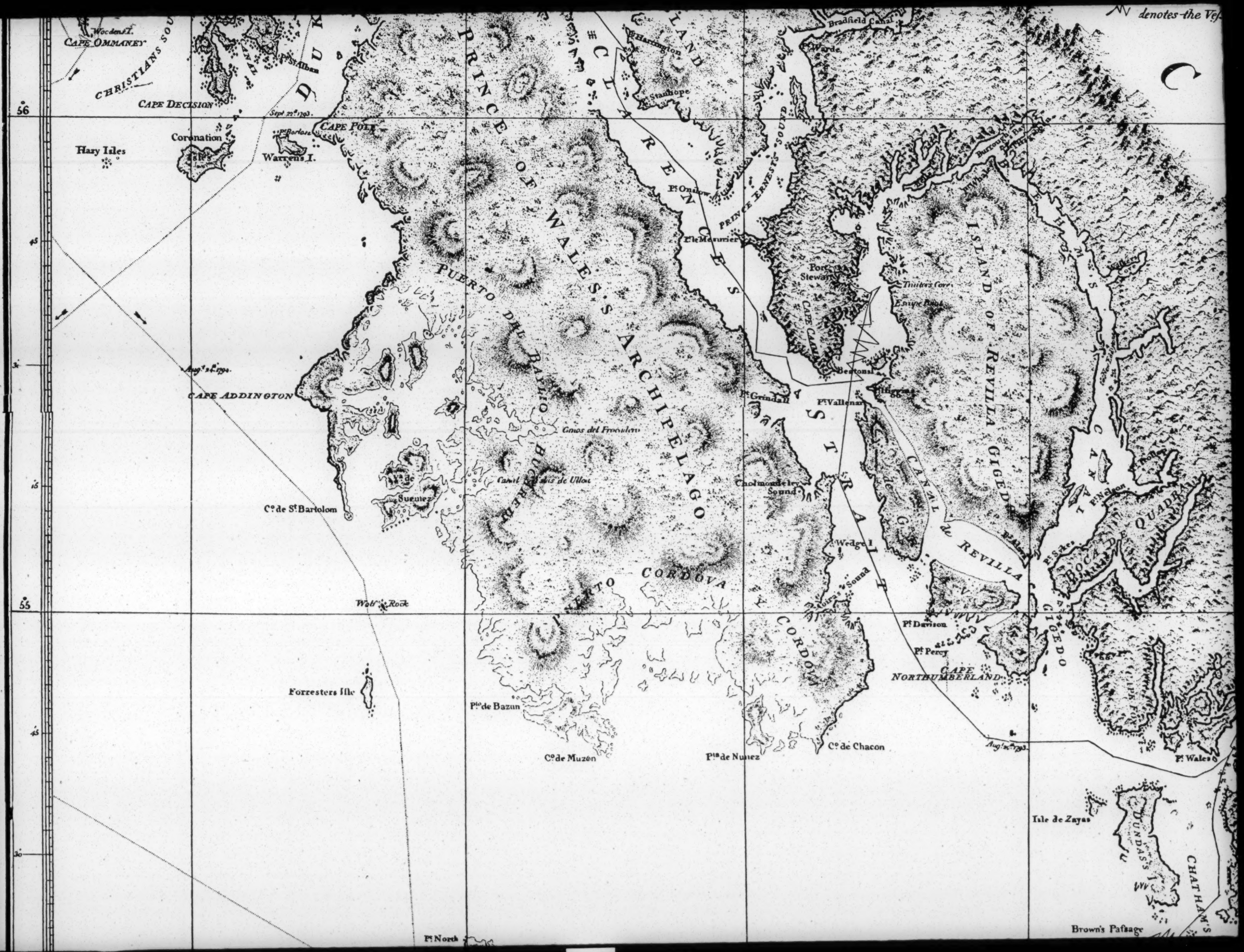
Warner Sculp.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Burroughs Bay
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Pt Sykes
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Pt Davison
Pt Percy
CAPE NORTHUMBERLAND
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Pt Wales
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DUNDAS'S I.
CHATHAM'S
Brown's Passage
Pt North
Cº de St Bartolom
Vª de Suenez
Wolf Rock
Forresters Isle
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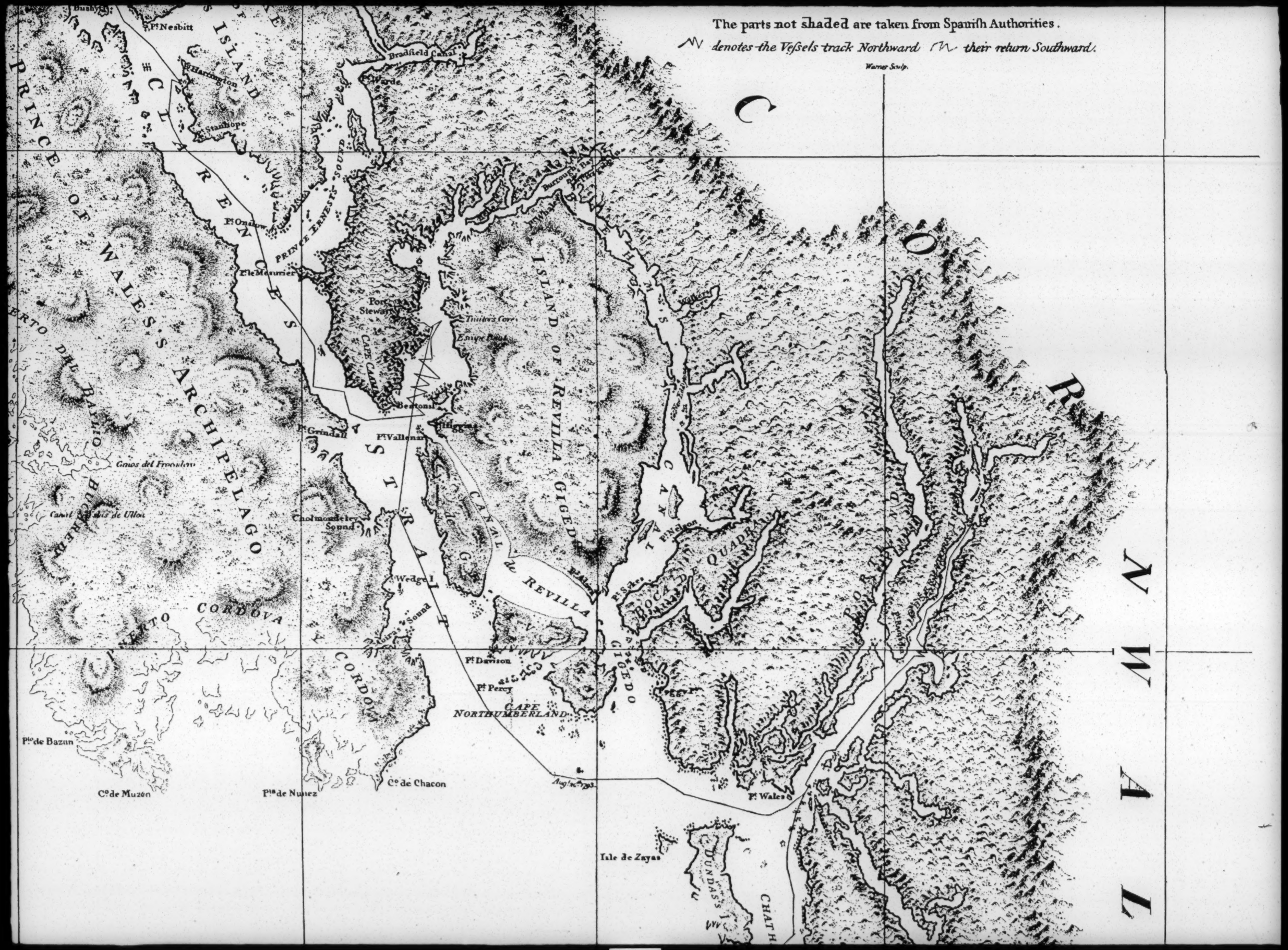
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PRINCE OF WALES'S ARCHIPELAGO
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PRINCE ERNEST'S SOUND
Bradfield Canal
Pt Nesbitt
Pt Hartington
Pt Stanhope
Pt Onslow
Pt le Mesurier
Port Stewart
CAPE CAMAS
Beatons I
Pt Grindall
Pt Vallenar
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Wedge I
Coira's Sound
Pt Davison
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BOCA DE QUADRA
CANAL
Pt Nelson
Pt Sykes
Burroughs Bay
Pt Whale
Walker's Cove
Tuitor's Cove
Escape Point
Genos del Frocadero
Canal de Ulloa
PUERTO DEL BAYLIO
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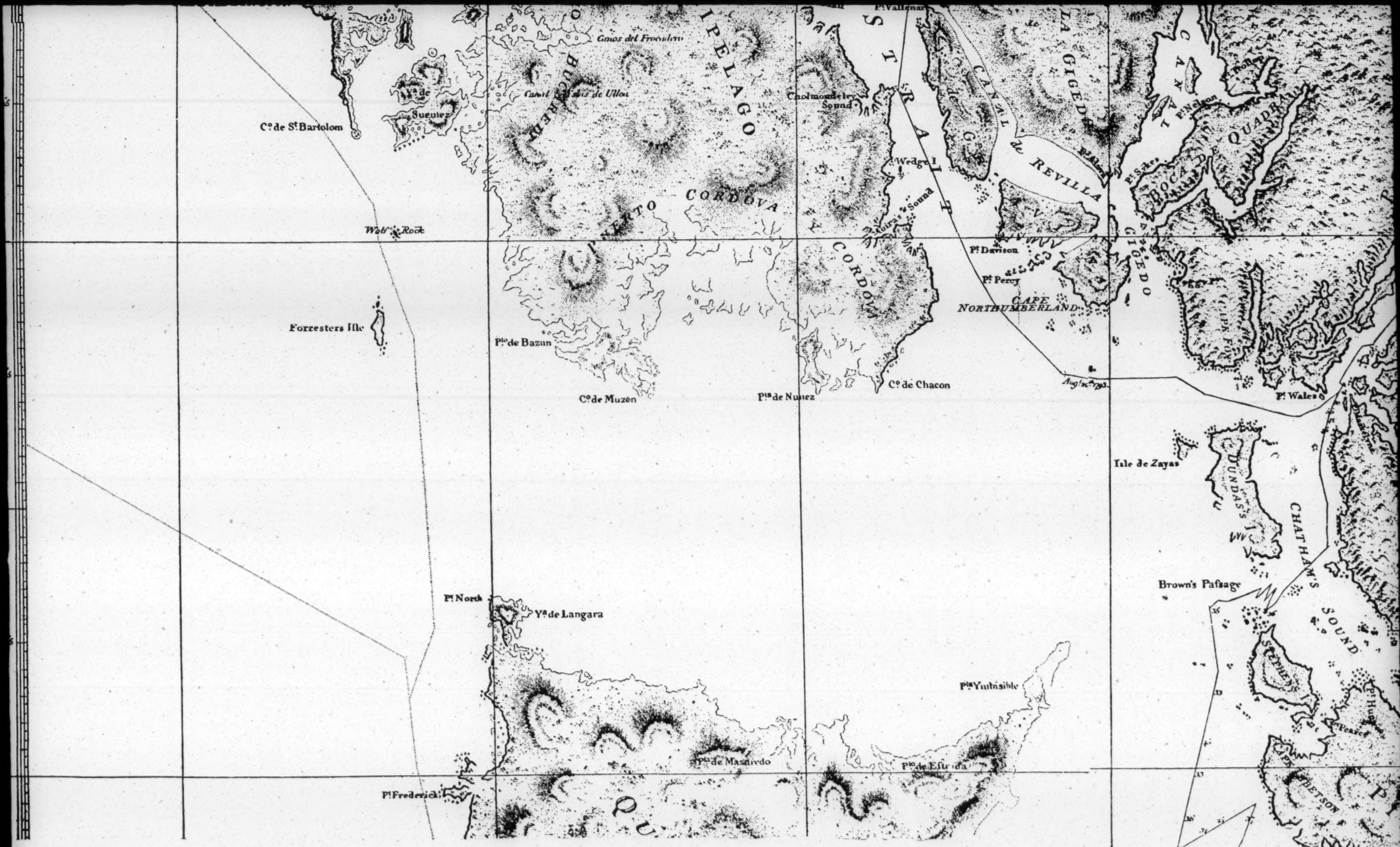

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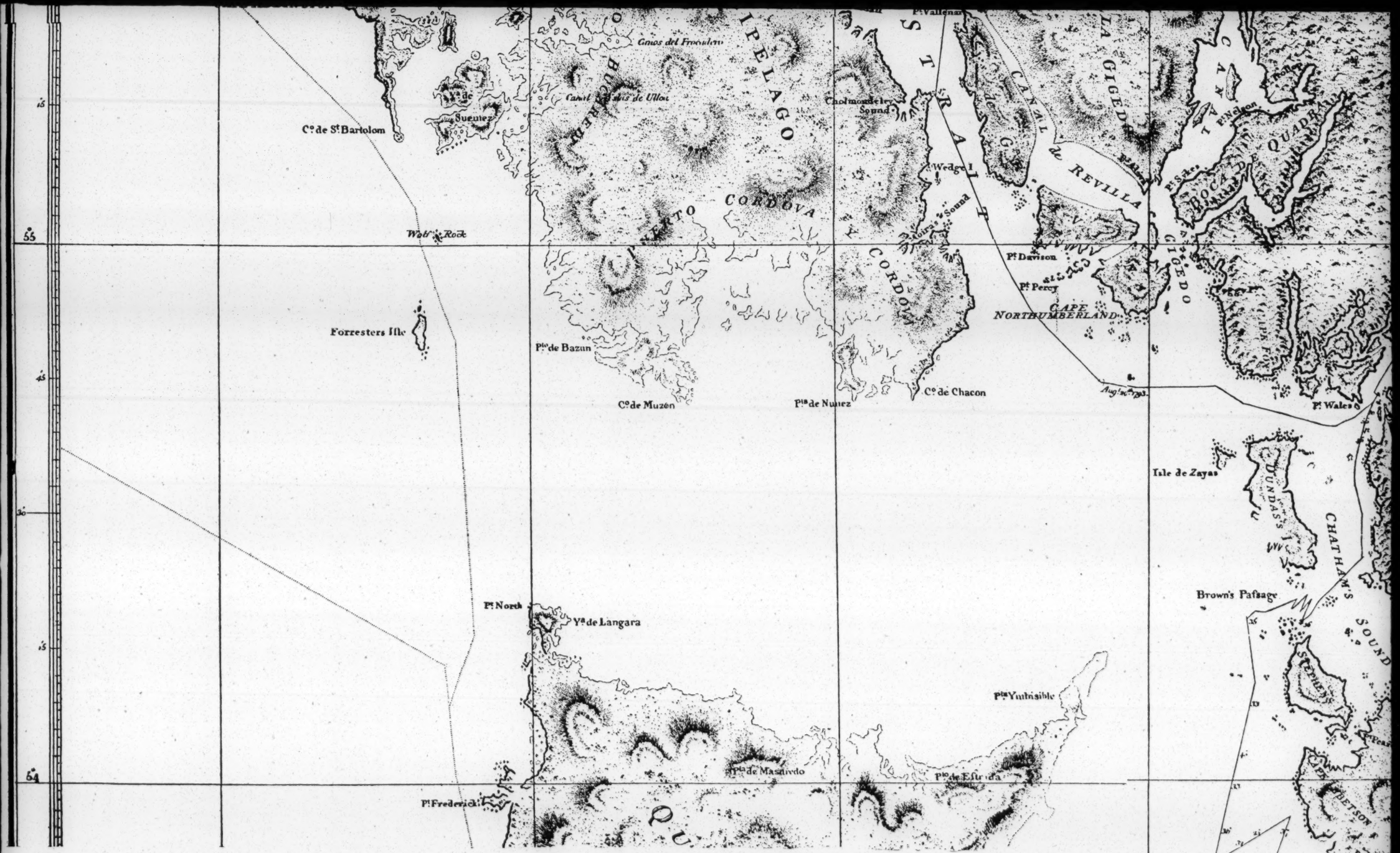

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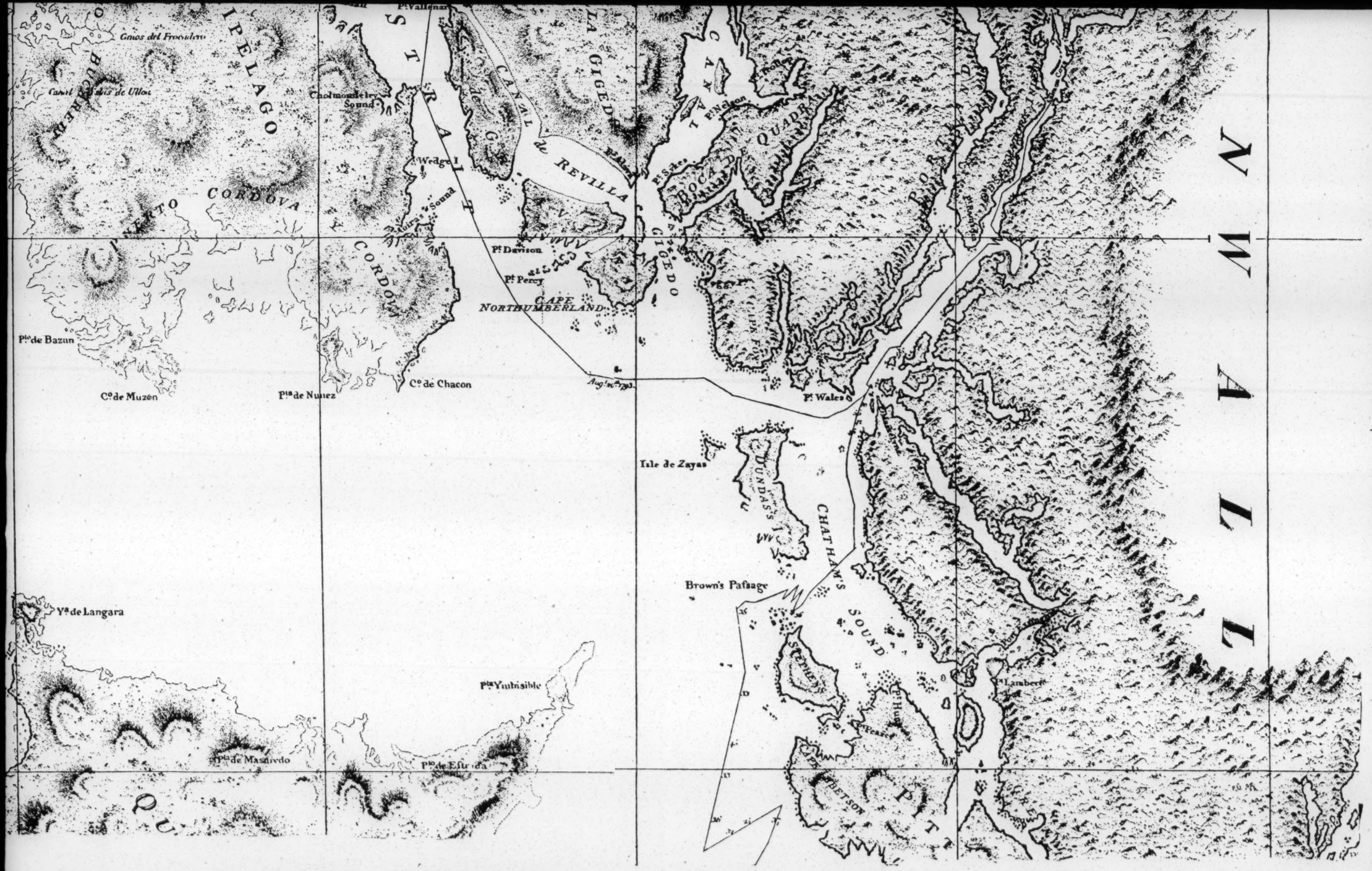

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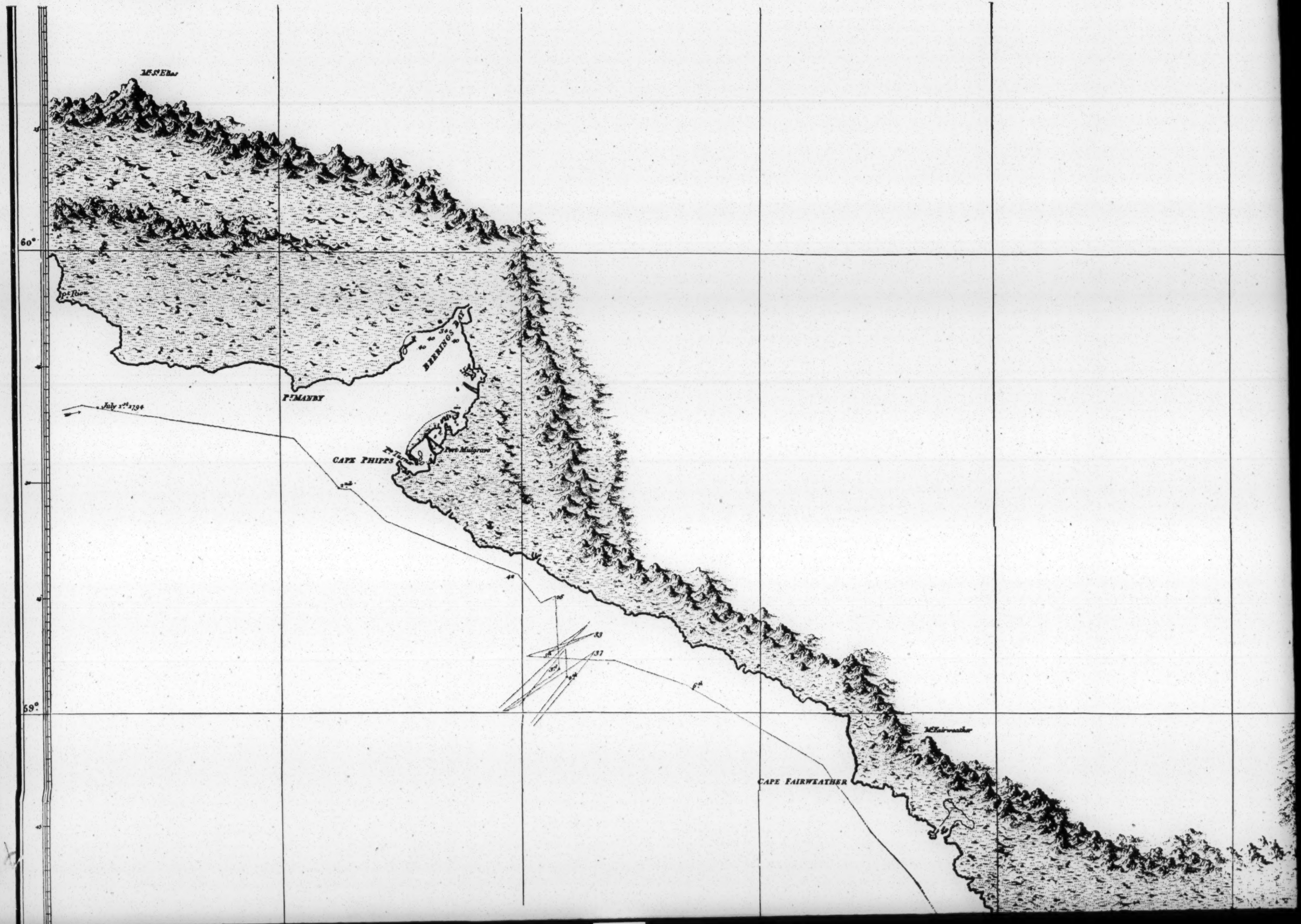
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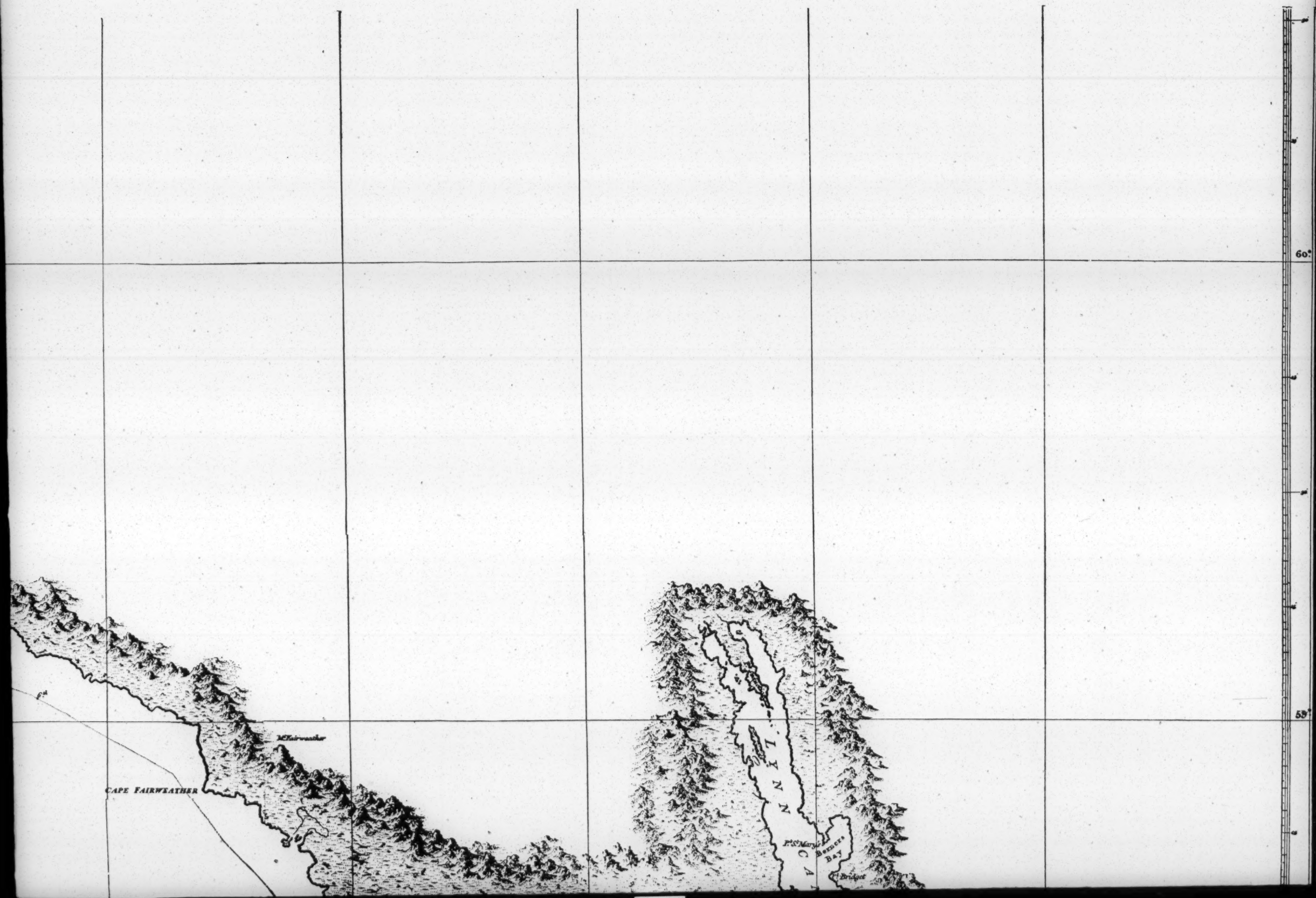
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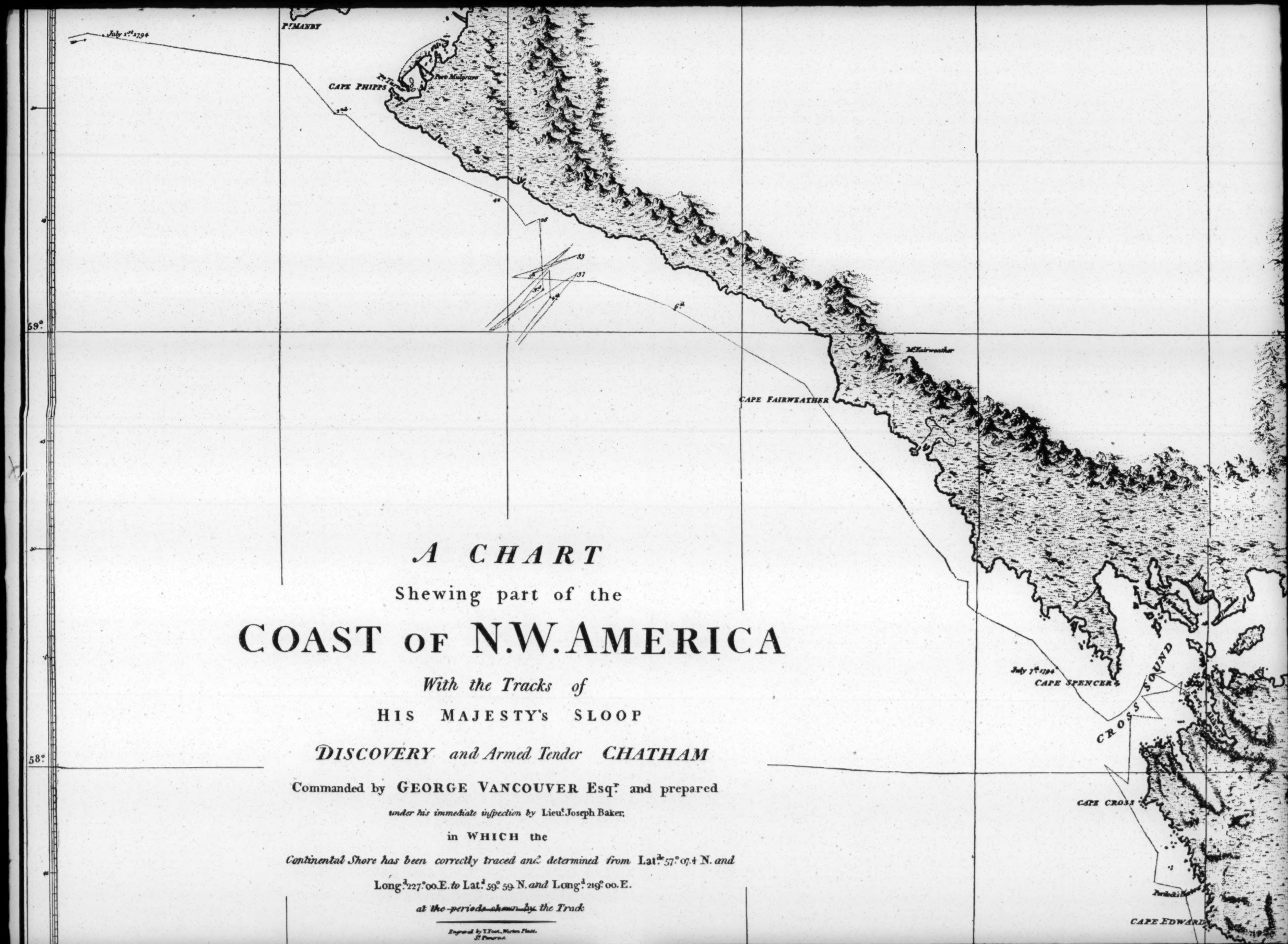
LYNN CANAL
Bridget



A CHART

Shewing part of the

COAST OF N.W. AMERICA

With the Tracks of

HIS MAJESTY's SLOOP

DISCOVERY and Armed Tender CHATHAM

Commanded by GEORGE VANCOUVER Esqr. and prepared

under his immediate inspection by Lieut. Joseph Baker,

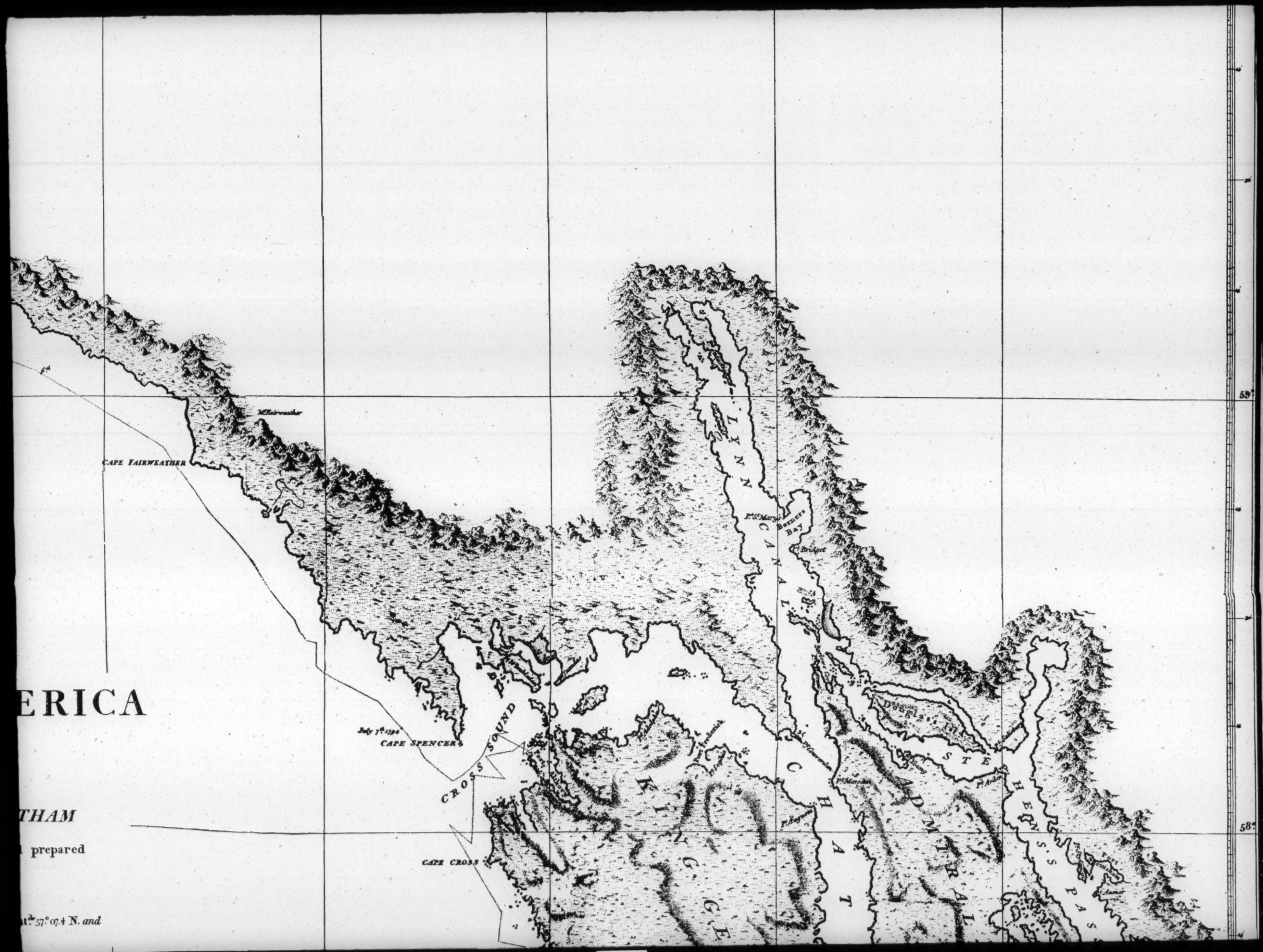
in WHICH the

Continental Shore has been correctly traced and determined from Latd. 57° 07.¼ N. *and*

Longd. 227° 00. E. *to* Latd. 59° 59. N. *and* Longd. 219° 00. E.

at the periods shewn by the Track

Engraved by T. Foot, Weston Place, St. Pancras.



ERICA
THAM
prepared
CAPE FAIRWEATHER
CAPE SPENCER
CAPE CROSS
CROSS SOUND
LYNN CANAL
Berners Bay
Douglas Isl.
STEPHENS'S PASS
ADMIRALTY
CHAT
KING GE
59°
58°

A CHART

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at the periods shewn by the Track

Engraved by T. Foot, Weston Place, St Pancras

Photo-lithographed from original print in the Archives of the U.S. Coast and Geodetic Survey by the Norris Peters Co. Washington, August, 1898

58.°

57.°

July 7.th 1794

CAPE SPENCER

CROSS SOUND

CAPE CROSS

CAPE EDWARD

July 30.th 1794

CAPE EDGECUM

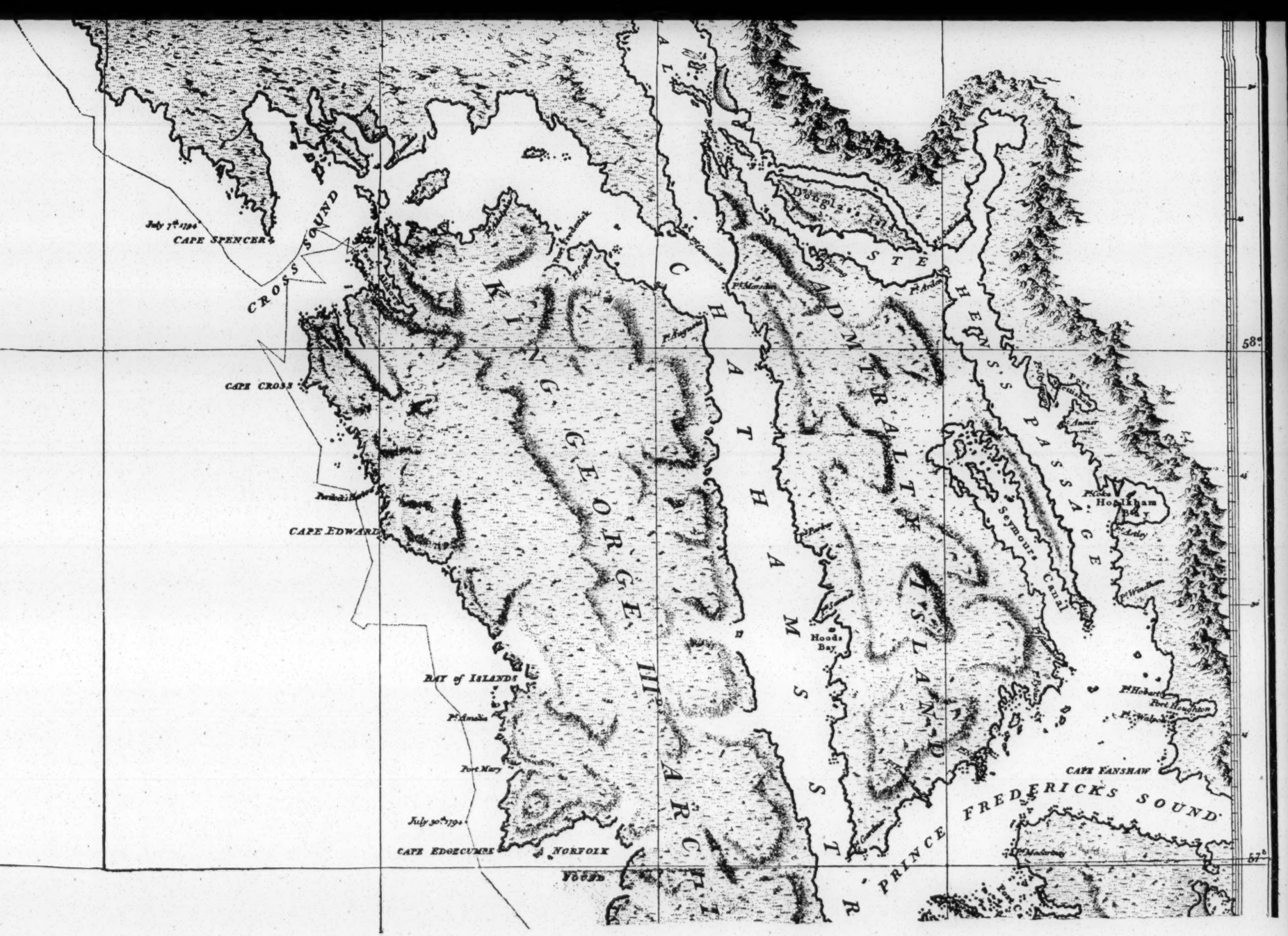
Map No. 3. Vancouver's Chart, No. 2

ERICA

HAM

prepared

57° 07.4 N. and



MAP No. 3. VANCOUVER'S CHART, No. 2

With this instruction in his possession Sir Charles Bagot, at the outset of the negotiations, in response to the Russian demand "for a strip of territory (*lisière*) upon the mainland" which would be "parallel to the sinuosities of the coast,"* proposed that the eastern line of this strip should run "always at a distance of 10 marine leagues from the shore as far as the 140° of longitude."† Russia suggested that the line should "run along the mountains which follow the sinuosities of the coast."‡ When the second negotiations were resumed Secretary Canning sent Mr Bagot a draft of a treaty in which it was provided that this line should "be carried along the coast in a direction parallel to the sinuosities and *at and within the seaward base* of the mountains by which it is bounded."§ In explanation the Secretary said, if pressed by Russia Mr Bagot might substitute the summit of the mountains if a limit to the east was fixed beyond which the line should not go. The British draft proposal of "the seaward base of the mountains" was rejected by Russia, and its counter-draft was that the line "shall not be wider on the continent than 10 marine leagues."‖

But Sir Charles Bagot's attention was so occupied with the other points of the treaty that the matter of the width of the strip did not receive serious consideration until the final stage of the negotiations was undertaken by Sir Stratford Canning, and as Great Britain had by that time receded from all the other contentions, it only remained for him to adjust the eastern line of the strip of the mainland which was to be held by Russia. In his draft of treaty it was proposed that the line should follow the crest of the mountains, provided that if the crest of the mountains should be more than ten marine leagues from the ocean the line should follow the sinuosities of the coast, so that it should at no point be more than ten leagues from the coast. This was in accordance with his instructions.¶ The Russian negotiators objected to the proviso and insisted that the crest of the mountains should be the invariable line, arguing that the natural frontier was the mountains following the coast.

Much of the difficulty in reaching an agreement on this point grew out of the imperfect geographic knowledge of the period.

views) it might, perhaps, be sufficient at present to settle a boundary on the coast only and the country 50 or 100 miles inland, leaving the rest of the country to the north of that point and to the west of the range of the mountains, which separate the waters which flow into the Pacific from those which flow to the east and north, open to the traders of both nations."

* Ib., 427. † Ib., 428. ‡ Ib., 399. § Ib., 435. ‖ Ib., 441. ¶ Ib., 447.

In 1792–'95 George Vancouver, under the direction of the British admiralty, made the first accurate and scientific survey of the northwest coast of North America, and his charts were published in 1798. These charts were for more than a generation the basis and source of information of all maps of that region. His survey was confined to the coast, as he made no exploration of the interior of the mainland beyond what was visible from his vessels. From these he saw at all points in the region under consideration a continuous array of mountains, and upon his charts there appears delineated a regular mountain chain following the sinuosities of the coast line around all the inlets (see maps Nos. 2 and 3). We know that the negotiators of the treaty of 1825 had before them Vancouver's charts and two other maps, one issued by the quartermaster-general's department, St Petersburg, 1802,* which reproduces the mountains as laid down by Vancouver, the other Arrowsmith's latest map, being the one published in London in 1822, with additions of 1823, and this map omits all mountain features in the region, being entirely blank. The published correspondence frequently shows that as to the interior of the mainland the negotiators were in great ignorance of its topography, and we have seen that even the deputy-governor of the Hudson's Bay Company was no better informed (*supra*, p. 431). Secretary Canning referred to "the mountains which run parallel to the coast and which appear, according to the map, to follow all its sinuosities," but he asks the British plenipotentiary to explain to his Russian colleagues the difficulty had with the United States arising out of the maps of the eastern side of the continent, on which mountains were laid down and which were found afterwards to be quite differently situated, and he adds: "Should the maps be no more accurate as to the western than as to the eastern mountains, we might be assigning to Russia immense tracts of inland territory where we only intended to give, and they only intended to ask, a strip of seacoast."† The British minister's fear was, as we have seen, lest an invariable line of "the summit of the mountains" might carry the Russian line even to the Rocky mountains, and it was to avoid such a contingency that he insisted on a specific limit to the Russian strip of the mainland. The Russian negotiators reluctantly yielded to the British view and the treaty was concluded.

The correspondence and documents thus reviewed by me

* Found in Fur Seal Papers, 1893, vol. V, appendix to British case.
† Ib., vol. IV, 447.

clearly establish three facts as the result of the negotiations: first, that Russia was to have a continuous strip of territory on the mainland around all the inlets or arms of the sea. Sir Charles Bagot fully understood this, and hence his repeated efforts to push the southern boundary of Russia as far north as possible, so that the Hudson's Bay Company might come down to tidewater with its trading posts, recognizing that this could not be done in front of the Russian line. The purpose for which the strip was established would be defeated if it was to be broken in any part of its course by inlets or arms of the sea extending into British territory. Second, with the strip of territory so established, all the interior waters of the ocean above its southern limit became Russian, and would be inaccessible to British ships and traders except by express license. It was because the Russian negotiators refused to make this license perpetual that the negotiations were a second time broken off, and only renewed when Great Britain yielded on this point. Third, the strip of territory was to be 10 marine leagues wide in all its extent, unless inside of that limit a chain of mountains existed which constituted a natural boundary or watershed between the two countries. The "seaward base" proposed by Great Britain was rejected, and there is no indication that isolated peaks were to constitute the line.

A fourth fact, not material to explain the treaty, is apparent from the record of the negotiations, and especially Secretary Canning's instructions of January 15, 1824, already cited,* to wit, that while the British government sought to restrict the limits of Russian territory as much as possible, it was prepared in return for the revocation of the ukase of 1821, if Russia was persistent, to accept an east line of the strip distant from the ocean 100 miles, and to have the line to the Arctic ocean drawn along the 135° of longitude, thus giving to Russia a strip more than three times as wide as she obtained and the whole of the Yukon gold districts.

We come now to the provisions of the treaty, and I confine my examination to those respecting which there are existing differences. Article III, in delineating the first section of the boundary, provides that "commencing from the southernmost point of the island called *Prince of Wales Island*, which lies in the parallel of 54° 40′ north latitude, . . . the said [boundary] line shall ascend to the north along the channel called

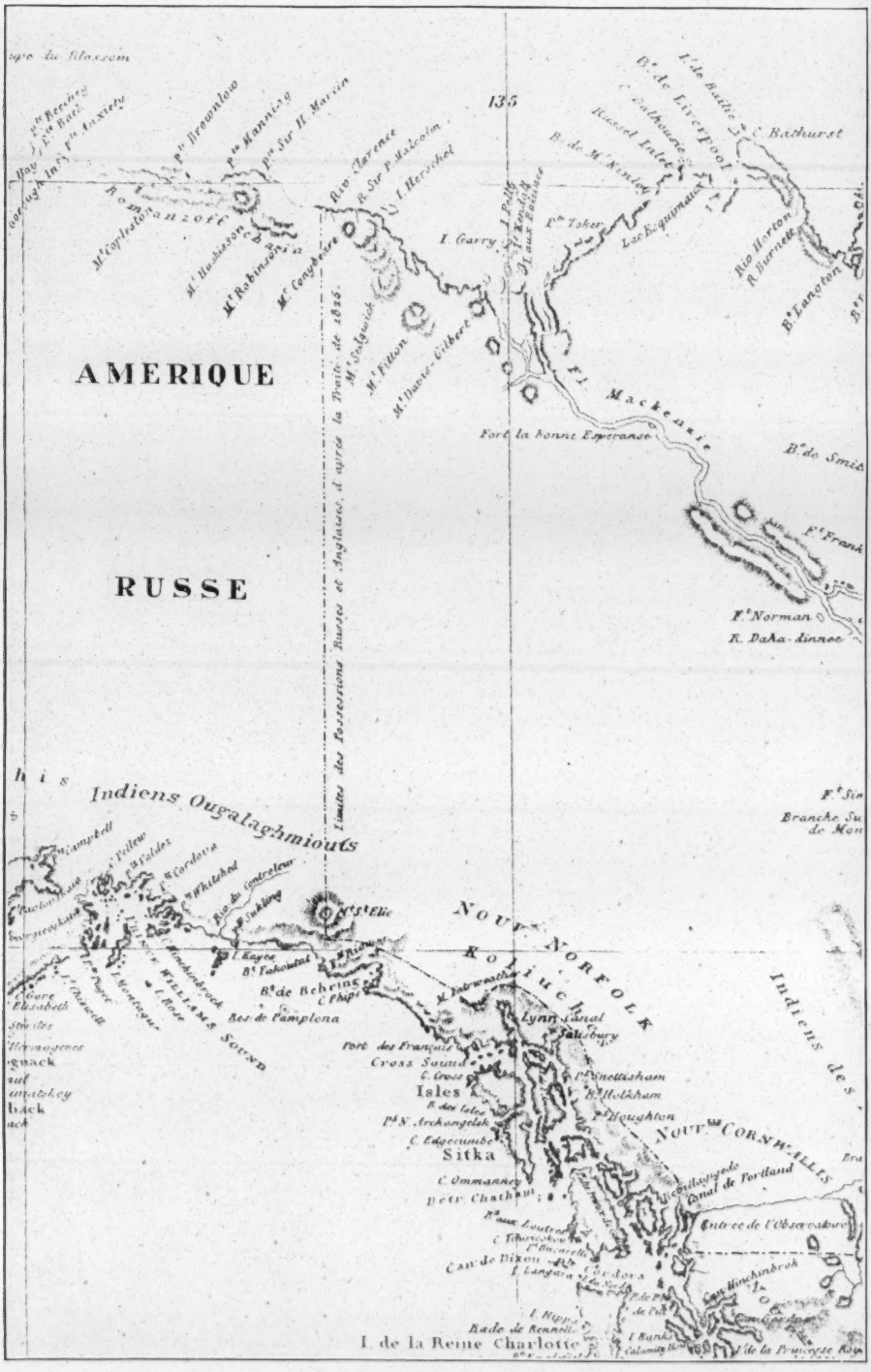
* Ib., 415–420.

Portland Channel as far as the point of the continent where it strikes the 56° of north latitude." The United States holds that under this provision the line starting from the extremity of Prince of Wales island shall enter the broad, deep, and usually navigated opening of Portland canal or channel and pass up to its head, and thence on the continent to the 56° of latitude. The present contention of Great Britain is understood to be that the line from the extremity of Prince of Wales island should enter the tortuous and narrow channel now known on the British admiralty and American charts as Pearse canal, and thence up Portland canal to the 56° of latitude, thus placing Wales, Pearse, and a few small islands in British territory.

The second portion of the line in dispute is described in the treaty as follows:

> "From this last-mentioned point [the 56° above the head of Portland canal] the line of demarcation shall follow the summit of the mountains situated parallel to the coast as far as the point of intersection of the 141° of west longitude. . . . Whenever the summit of the mountains which extend in a direction parallel to the coast . . . shall prove to be at the distance of more than 10 marine leagues from the ocean, the limit between the British possessions and the strip of coast which is to belong to Russia, as above mentioned, shall be formed by a line parallel to the sinuosities of the coast, and which shall never exceed the distance of 10 marine leagues therefrom."

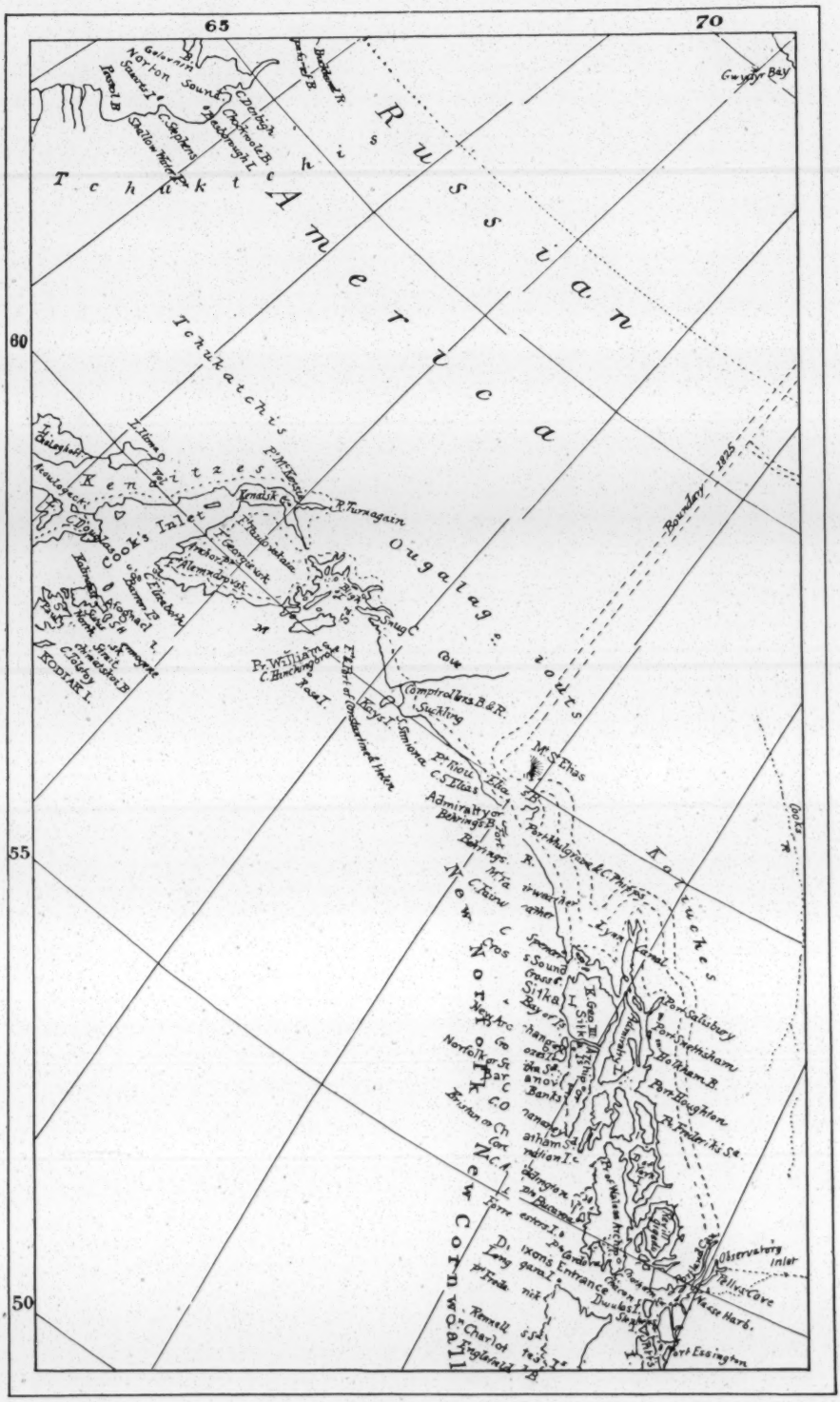
This language of the treaty presupposes that there existed a defined mountain chain, to repeat its terms, "situated parallel to the coast" or "which extend in a direction parallel to the coast;" but the surveys of the region made since the territory of Alaska was ceded to the United States have established the fact that there is no such defined chain or watershed within 10 marine leagues of the sinuosities of the coast except at two points, namely, White and Chilkoot passes; hence the United States claims that the boundary of the strip is placed 10 marine leagues from the coast at all points except at White and Chilkoot passes, and that the strip is an unbroken belt of territory on the mainland, following the sinuosities of the coast around the inlets of the sea. On the other hand, the British claim is that the line from the 56° runs directly to the coast and follows the mountains nearest to the outer shore line and crosses not less than ten or twelve arms of the sea or inlets, thus breaking the strip of mainland into as many different sections, and transferring all the water of the bays and inlets to the British possessions (see map No. 12.)



MAP No. 4

RUSSIAN IMPERIAL MAP

"Dressé par M. de Krusenstern, Coutre-Amiral . . . publié par ordre de Sa Majesté Imperial. St Petersbourg, 1827"



MAP No. 5

BRITISH MAP, 1832

"By permission dedicated to the Hon'ble Hudson's Bay Company. Containing the latest information which their documents furnish, by their obedient servant, J. Arrowsmith." London, 1832

The remaining article to be noted is the seventh, which provides "that for the space of ten years . . . the vessels of the two powers, or those belonging to their respective subjects, shall mutually be at liberty to frequent, without any hindrance whatever, all the inland seas, the gulfs, havens, and creeks on the coast mentioned in article 3 for the purposes of fishing and of trading with the natives." I have already referred to the fact that the negotiations were broken off because the British plenipotentiary insisted that the liberty to frequent those "inland seas, gulfs, havens, and creeks" should be made perpetual, and that the negotiations were renewed upon the basis of the privilege granted in the Russo-American treaty of 1824, the language of article IV of which, as Secretary Canning informed Sir Charles Bagot,* was copied into the British treaty. This ten years' privilege is inconsistent with any other interpretation of the treaty than the complete sovereignty of Russia over, not only a strip of territory on the mainland which follows around the sinuosities of the sea, but also of the waters of all bays or inlets extending from the ocean into the mainland. This is the more manifest when the subsequent history respecting the provision of article IV of the American and article VII of the British treaty is recalled. At the expiration of the term of ten years the Russian minister in Washington gave notice to the Government of the United States that the privilege had expired, and a notification to that effect was made in the public press of the United States.† Persistent efforts were made by the United States to have the privilege extended for another period of ten years, but it was firmly refused by Russia.‡ The British privilege was likewise terminated upon the expiration of the ten years mentioned, and this article of the treaty was never again revived.

Having reviewed the negotiations preceding the treaty of 1825 and examined the provisions of that instrument now in dispute, I pass to a statement of facts since the celebration of the treaty, showing the views of the high contracting parties and those claiming under them as to the stipulations of that convention. As soon after the treaty as the data could be compiled, to wit, in 1827, a map was published in St Petersburg, "by order

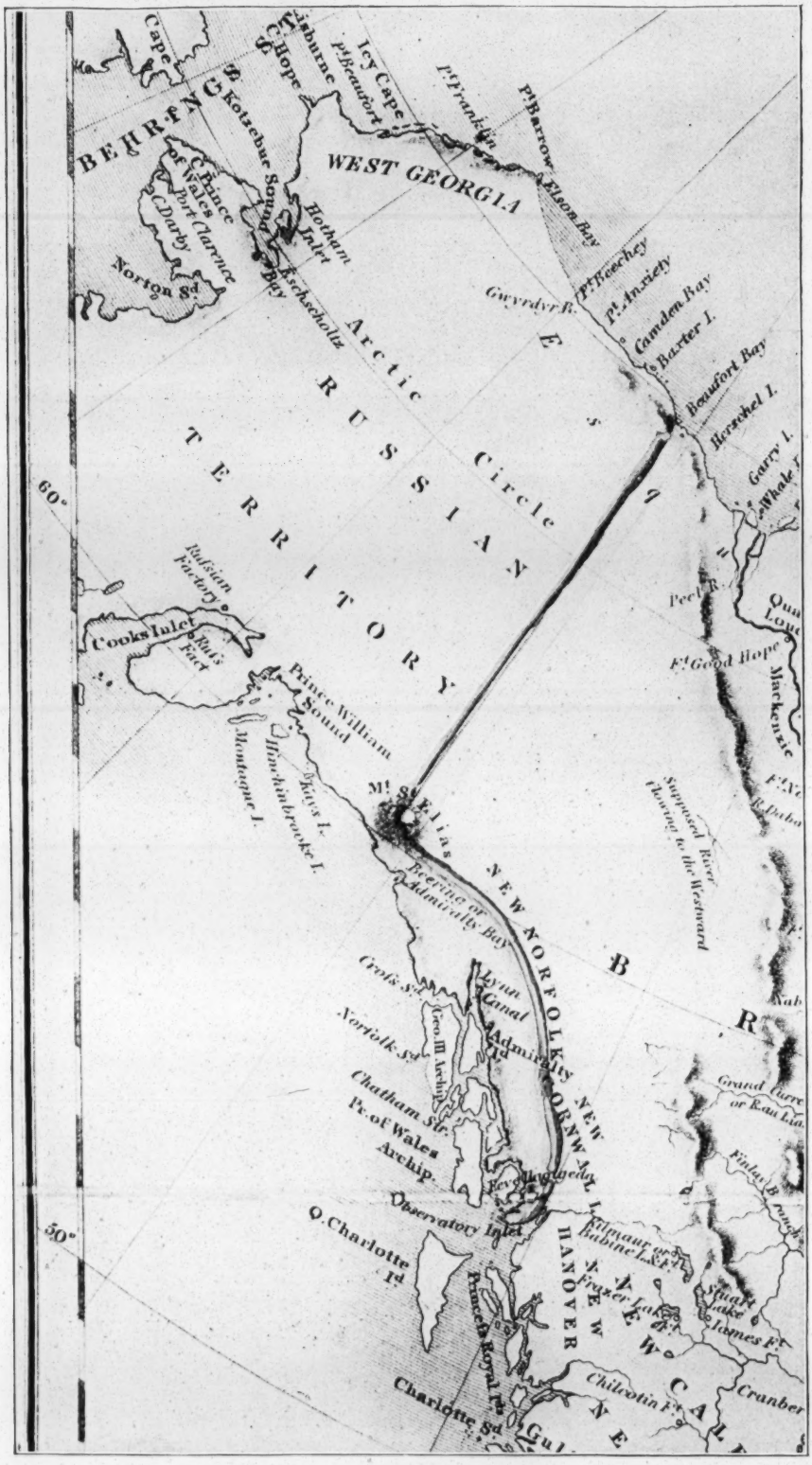
*Ib., 434. Secretary Canning, in his instruction to Sir Stratford Canning, used this language: "Russia cannot mean to give to the United States of America what she withholds from us, nor to withhold from us anything that she has consented to give to the United States."

†Senate Ex. Doc. No. 1, Twenty-fifth Congress, third session, p. 24. ‡Ib., 69.

of His Imperial Majesty," on which the boundary line of the Russian possessions on the continent of North America was drawn from the head of Portland channel, at a distance of ten marine leagues from tidewater, around the head of all the inlets to the 141° of longitude, and thence following that longitude to the Arctic ocean. Along this line on the map is inscribed the legend: "*Limites des Possessions Russes et Anglaises, d'apres la Traité de 1825*" (see map No. 4). So far from this map exciting any protest or criticism its delineation was adopted and followed by the cartographers of His Britannic Majesty, of the government of Canada, and by all the map-makers of the world. John Arrowsmith, the most authoritative cartographer of London, whose map was used by the British negotiators of the treaty of 1825, published a map of the northwest coast in 1832, which states that it contains the latest information which the documents of the Hudson's Bay Company furnish. It will be seen that it exactly follows the line laid down by the Russian imperial map of 1827 (see map No. 5).

Arrowsmith's map was preceded, in 1831, by a map of the northern part of North America, prepared by Joseph Bouchette, deputy surveyor-general of the province of Lower Canada, and "published, as the act directs, by James Wyld, geographer to the King, London, May 2d, 1831." It is "with His Majesty's most gracious and special permission most humbly and gratefully dedicated . . . to His Most Excellent Majesty King William IVth, . . . compiled from the latest and most approved astronomical observations, authorities, and recent surveys." This map traces the Russian boundary on the continent in conformity to the Russian imperial map of 1827 (see map No. 6). And all later publications, either official or unofficial, of Canada followed the same course, as illustrative of which I reproduce the map which bears the following title: "Map of the northwest part of Canada, Indian territories, and Hudson's Bay. Compiled and drawn by Thomas Devine, provincial land surveyor and draftsman. By order of the Hon. Joseph Cauchon, commissioner of Crown lands, Crown department, Toronto, March, 1857" (see map No. 7).

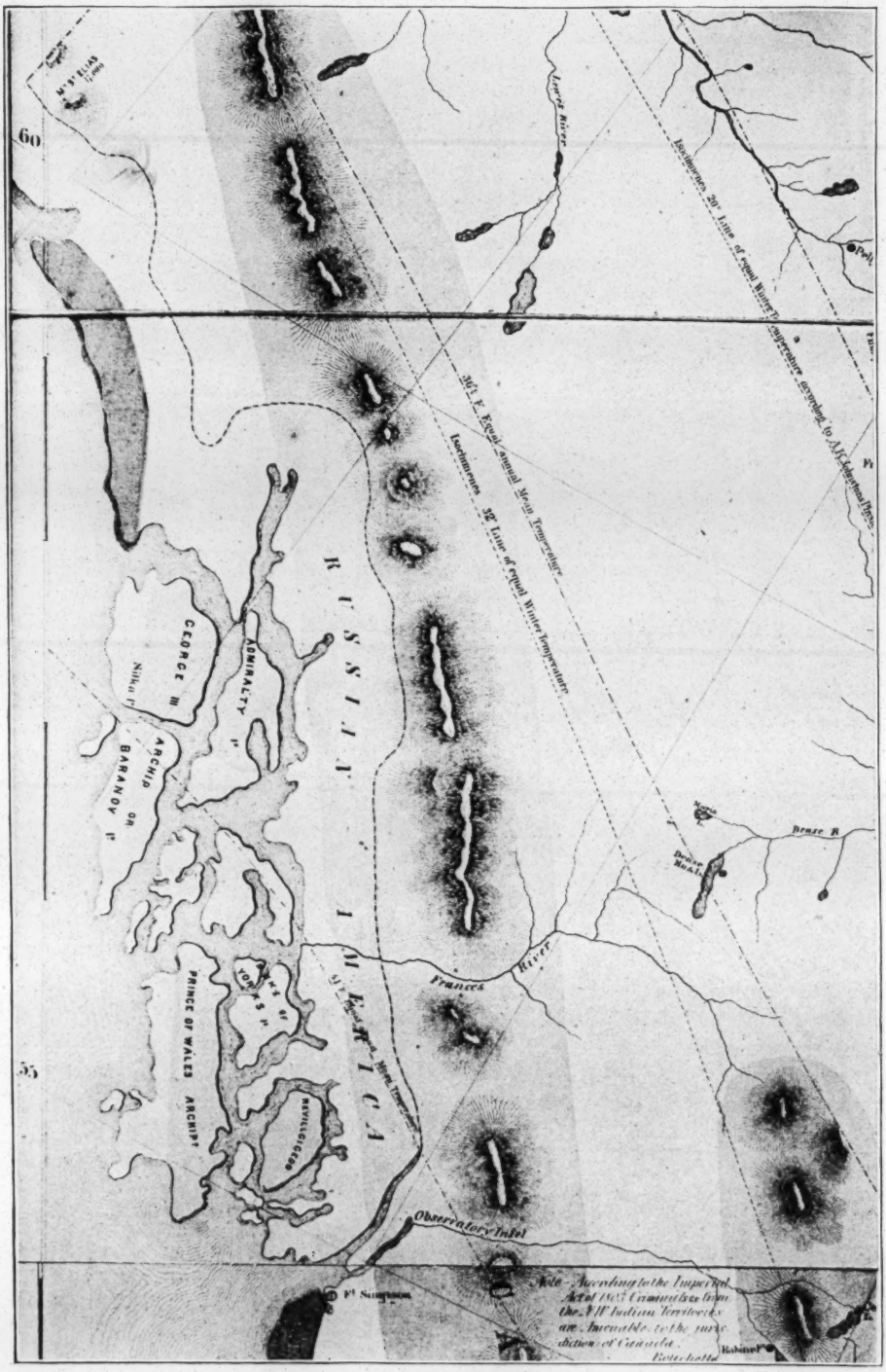
So far as I have been able to examine, the map-makers of all foreign countries followed the boundary line drawn by Russia in 1827. This was notably the case with the French cartographers, who have held a high place in the profession for accuracy and authenticity. From the great number of publications, I have



MAP No. 6

CANADIAN MAP OF 1831

"Compiled from the latest and most approved astronomical observations, authorities, and recent surveys . . . by Joseph Bouchette, Junr., Deputy Surveyor General of the Province of Lower Canada." May 2, 1831.



MAP No. 7

CANADIAN MAP OF 1857

"Compiled and drawn by Thos. Devine, Provincial Land Surveyor and Draftsman. By order of Hon. Joseph Cauchon, Commissioner of Crown Lands, Crown Department, Toronto, March, 1857"

selected one which appeared in 1844, first, because it was based upon the actual observations of a voyage of exploration made by a French official, and, second, because it was "published by order of the King, under the auspices of . . . the president of the council of ministers and of the minister of foreign affairs." It will be seen that on this map is inscribed the line of the "*Traité entre la Russie et l'Angleterre du 28 Fevrier, 1825*," as indicated on the Russian imperial map (see map No. 8).

No map accompanied the treaty of 1867 between Russia and the United States for the cession of Alaska, but immediately after it was signed the Secretary of State caused a map to be compiled and published to indicate the territory acquired by that convention, and it delineates the strip of territory on the mainland just as it had been claimed by Russia forty years before (see map No. 9).

A multitude of maps might be reproduced to show that, with the exception of certain maps published in British Columbia in and after 1884, all such publications, whether emanating from British and Canadian or from disinterested foreign sources, from the time the treaty of 1825 became known up to the meeting of the Joint High Commission in 1898, were of the same character as those already described and reproduced; but I will limit myself to one of the most recent. This was published in the *Scottish Geographical Magazine*, Edinburgh, the July number, 1898, to accompany an article entitled "The Yukon District, by Wm. Ogilvie, astronomer and land surveyor." This map, it will be seen, lays down the line according to the American claim (see map No. 10). It is not cited to establish any authoritative fact, but simply to show that even after the Joint High Commission had been agreed upon the best informed British cartographers had not become aware of any conflicting claim.

Soon after the expiration of the ten years' privilege enjoyed by British vessels and traders to visit "the inland seas, the gulfs, havens, and creeks" enclosed by the Russian strip on the mainland, an important event occurred which is decisive of the interpretation of the treaty given to it by the two nations who were the contracting parties. I have referred to the two competing trading companies in whose interest the negotiations were carried on and for whose benefit, mainly, the treaty was made. The Russian American Company, which was the virtual government of the territory of Russian America, is described

by Bancroft in his "History of Alaska" as a "powerful monopoly, firmly established in the favor of the imperial government, many nobles of high rank and several members of the royal family being among its shareholders." The correspondence shows that the Russian negotiators were chiefly concerned to so frame the treaty as to meet the wishes of the representatives of this company, which was in intimate conference with them at St Petersburg.

The Hudson's Bay Company is so conspicuous a part of the history of British North America that I need hardly refer to its part in the government and development of that vast region of our continent. At the date of the negotiations it had recently absorbed its rival, the Northwest Company, and it was at the height of its power and influence. It was the only representative of British authority in all the region west and north of the province of Ontario at that date and for several years after the middle of the present century. The British negotiators of the treaty of 1825 were influenced almost entirely in their negotiations by the views and interests of this company. Its representatives were in constant communication with Secretary Canning by personal interviews and by letters; the boundary line which they recommended was accepted and urged by the British government; and when negotiations were broken off they were not resumed till this company was heard from, and its views were again adopted and pressed.* It is safe to assert that no one understood so well as the officials of these two companies the territorial rights of their respective governments and subjects secured by the treaty.

A British vessel in the service of the Hudson's Bay Company, the *Dryad*, reached the Russian post of Fort Wrangell, destined, as it was alleged, for the British territory in the interior, at the headwaters of the Stikine river. The vessel was detained and not allowed to proceed on its voyage. The British government protested to the Russian government and presented to it a large claim for damages. The Russian government, being hard pressed by the British minister, urged the Russian American Company to come to some settlement with the Hudson's Bay Company, and thereupon the governor of the latter, and one of the directors of the former company, with the express authorization of the two governments, met at Hamburg in 1839. As a result of their conferences the Russian American Company agreed to lease

* Fur Seal Arbitration Papers, vol. iv, pp. 380, 383, 387, 417, 419, 421, 431.

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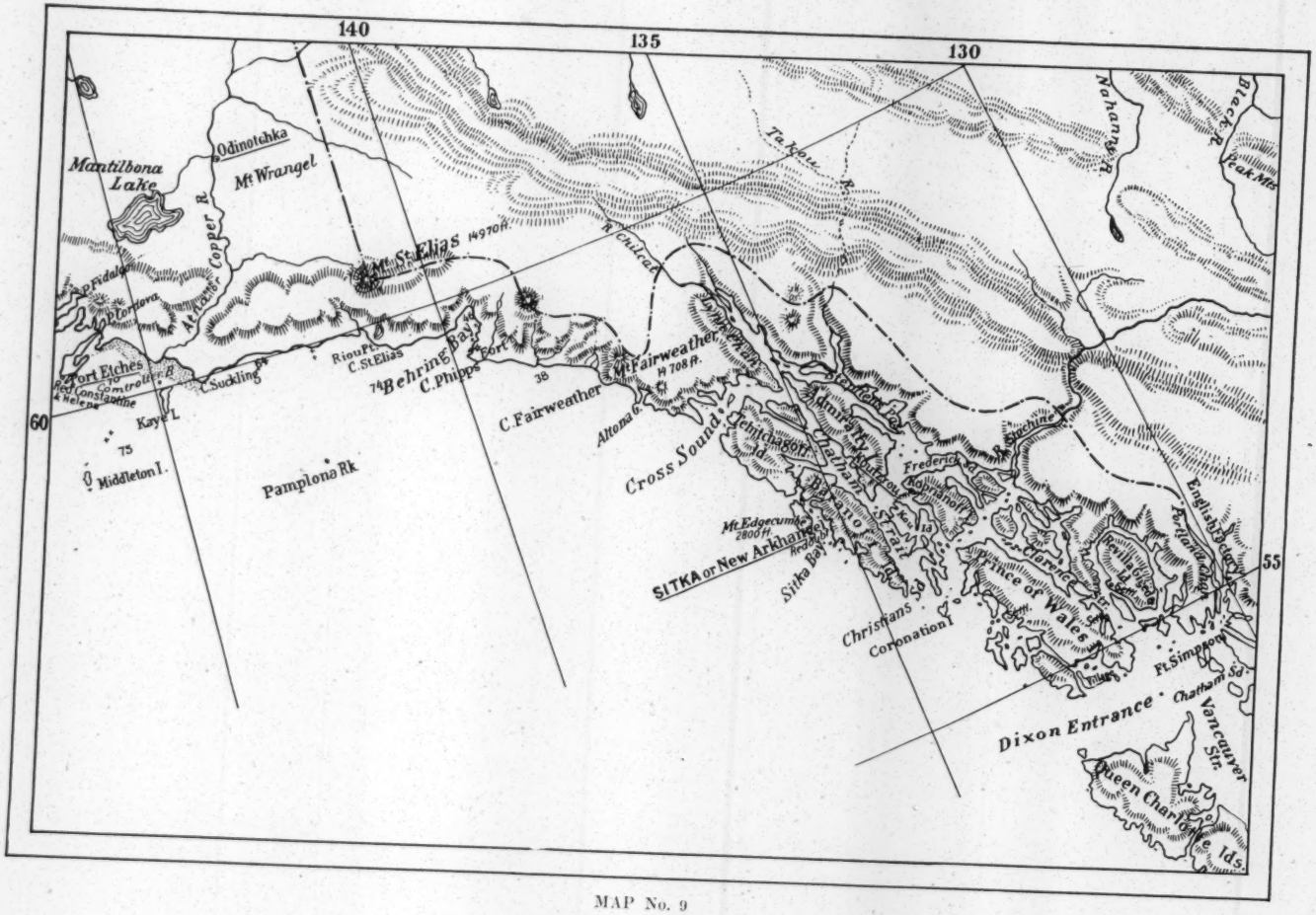
Mont St Elie 5444 M.
Indiens
Ls Ougalakmiouts
Kalouches
Traité entre la Russie et l'Angleterre du 28 février 1825
Convention commerciale de 1838 entre l'Angleterre et la Russie
OCEAN
PACIFIQUE
OU
GRAND
OCEAN
Canal de Behring
Ile Kaniagh
Ile Sitkine
Ile Arkangelsk
Entrée de la Croix
Entrée de Christian
Entrée de Pérez en 1774
Port Simpson
Port Nanvaez
Fort Rupert
Fort Russe
Fort Tako
Fort Rae
Fort Simpson
Fort Nanvaez
Fort Rupert
Pt et Ft Highfield
Pt de Barrie
Pt de Protection
Pt de Bucarelli
Pt de Bucarelli
Pt de Bucarelli



MAP No. 9

STATE DEPARTMENT MAP, 1867

"Showing the territory ceded by Russia to the United States. Compiled for the Department of State at the U. S. Coast Survey Office, second edition, May, 1867"

to the Hudson's Bay Company the strip of territory on the mainland and "all the bays, inlets, estuaries, rivers, or lakes in that line of coast" secured to Russia under the treaty, in consideration of the abandonment or satisfaction of the claim for damages on account of the *Dryad*, and also of an annual payment by the Hudson's Bay Company.* This lease was approved by both the Russian and British governments, and in accordance with its terms the Hudson's Bay Company entered upon and occupied the strip of territory, and at the expiration of the term of years stated the lease was, with the approval of the two governments, extended for another like term, and afterwards prolonged to about 1865.

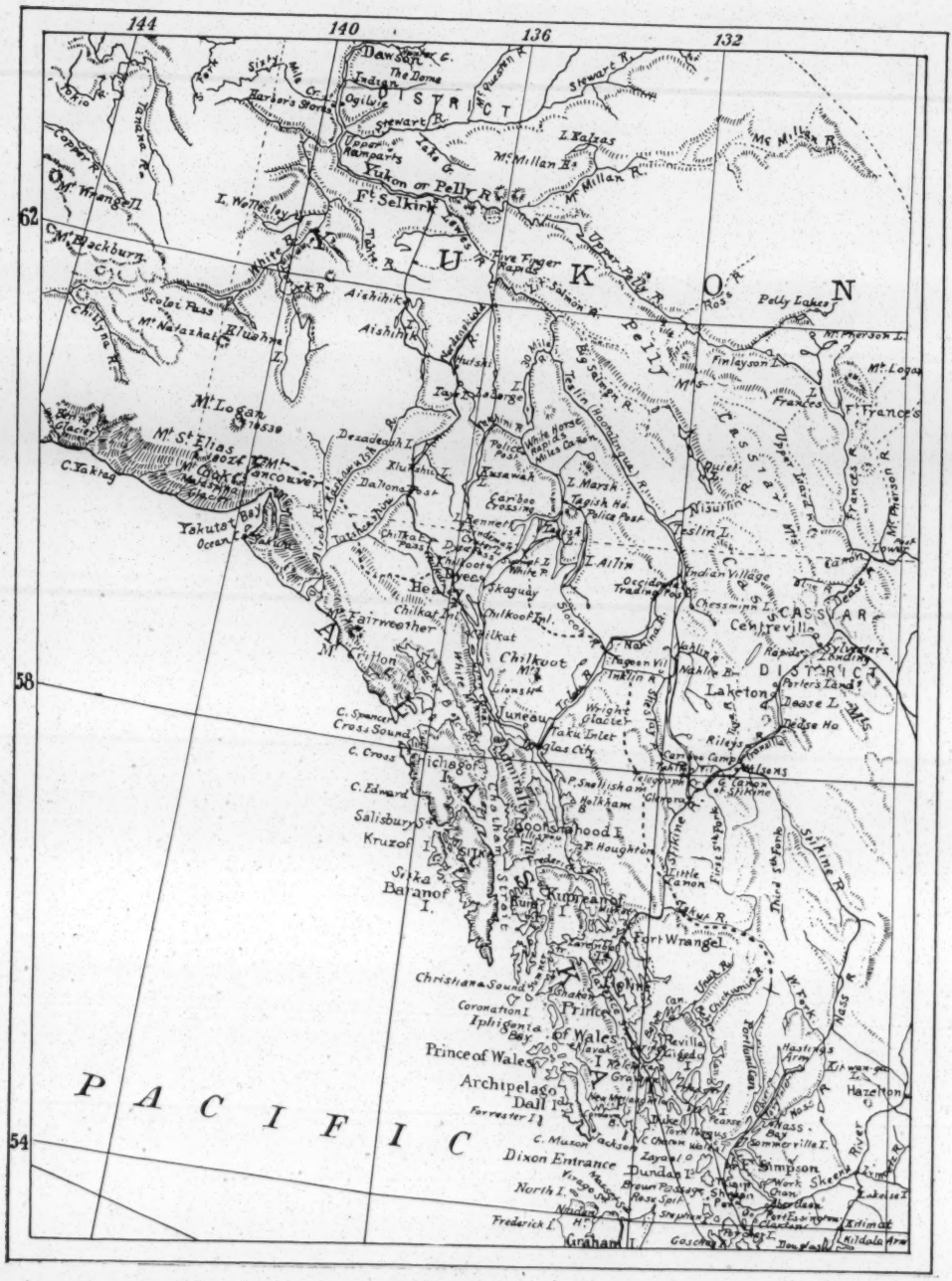
The plenipotentiary on behalf of Great Britain and the Hudson's Bay Company who negotiated and signed this lease was Sir George Simpson, governor of the Hudson's Bay Company, who had assumed that office five years before the treaty of 1825. He was fully conversant with the negotiations, and, as he testified before the Parliamentary committee, was familiar with the leased strip of territory, having traveled over it in the course of his duties as governor. The language of the lease is sufficiently explicit as to the particular territory and waters to which it applied, but we have in addition an authoritative ocular proof of what land and water this lease embraced.

In 1857 a select committee of the House of Commons of the British Parliament was appointed "to consider the state of those British possessions in North America which are under the administration of the Hudson's Bay Company, or over which they possess a license to trade."† Among the members of this com-

* The following is a copy of article I of the lease:

"ARTICLE I. It is agreed that the Russian American Company, having the sanction of the Russian government to that effect, shall cede or lease to the Hudson's Bay Company for a term of ten years, commencing from the 1st of June, 1840, for commercial purposes, the coast (exclusive of the islands) and the interior country belonging to His Majesty the Emperor of Russia, situated between Cape Spencer, forming the northwest headland of the entrance of Cross sound and latitude 54° 40′ or thereabouts, say the whole mainland coast and interior country belonging to Russia, together with the free navigation and trade of the waters of that coast and interior country situated to the southward and eastward of a supposed line to be drawn from the said Cape Spencer to Mount Fairweather, with the sole and entire trade or commerce thereof, and that the Russian American Company shall abandon all and every station and trading establishment they now occupy on that coast, and in the interior country already described, and shall not form any station or trading establishment during the said term of ten years, nor send their officers, servants, vessels, or craft of any description for the purposes of trade into any of the bays, inlets, estuaries, rivers, or lakes in that line of coast and in that interior country." (Russian archives, Department of State.)

† Report from the Select Committee on the Hudson's Bay Company, etc. Ordered by the House of Commons to be printed 31 July and 11 August, 1857, p. 2.



MAP No. 10

SCOTTISH GEOGRAPHICAL MAGAZINE MAP, 1898

"Map of western part of the Dominion of Canada, to accompany a paper by Wm. Ogilvie. *Scottish Geographical Magazine*, 1898"

mittee are found the names of Lord John Russell, Lord Stanley, Mr Roebuck, and Mr Gladstone. Another member was Mr Ellice, a native of Canada and a director of the Hudson's Bay Company. There was also in attendance on the sessions of the committee, as a representative of the government of Canada, Chief Justice Draper, of Canada. Sir George Simpson was examined before this committee and was questioned in detail respecting the lease, and his testimony confirms the foregoing statement. To explain and accompany his testimony, he exhibited to the committee a map of the territory in question, and said: "There is a margin of coast, marked yellow on the map, from 54° 40′ up to Cross sound which we have rented from the Russian American Company for a term of years";* and he proceeded at some length to explain the territory and the reasons for the lease.

No question was raised by any member of the committee, or by the representative of Canada, as to the validity of the lease or to the correctness of the map, which was printed as a part of the report submitted to Parliament. An examination of this map will show that the leased strip of territory is continuous, and is carried around all the inlets and interior waters, in conformity with the present claim of the United States (see map No. 11). This lease was followed by another act on the part of the two governments confirming their approval of the transaction. During the Crimean war, at the request of the two companies, the territory embraced in the lease was, by order of both the British and Russian governments, exempt from the opera-

*Report, etc., p. 1391. Extract from Simpson's testimony:

"1026. Besides your own territory, I think you administer a portion of the territory which belongs to Russia, under some arrangement with the Russian Company? There is a margin of coast, marked yellow on the map, from 54° 40′ up to Cross sound which we have rented from the Russian American Company for a term of years.

"1027. Is that the whole of that strip? The strip goes to Mount St. Elias.

"1028. Where does it begin? Near Fort Simpson, in latitude 54; it runs up to Mount St. Elias, which is farther north.

"1029. Is it the whole of that strip which is included between the British territory and the sea? We have only rented the part between Fort Simpson and Cross sound.

"1030. What is the date of that arrangement? That arrangement, I think, was entered into about 1839.

"1031. What are the terms upon which it was made? Do you pay a rent for that land? The British territory runs along inland from the coast about 30 miles; the Russian territory runs along the coast; we have the right of navigation through the rivers to hunt the interior country. A misunderstanding existed upon that point in the first instance; we were about to establish a post upon one of the rivers, which led to very serious difficulties between the Russian American Company and ourselves. We had a long correspondence, and to guard against the recurrence of these difficulties it was agreed that we should lease this margin of coast and pay them a rent. The rent was, in the first instance, in otters. I think we gave 2,000 otters a year; it is now converted into money. We give, I think, 1,500 a year."

tions of the war. This fact is shown by the Alaska archives and by the testimony of Sir George Simpson before the Parliamentary committee.*

About the time of the cession of Alaska to the United States gold was discovered in the Cassiar region of British Columbia, reached through the Stikine river, and the passage of miners made it desirable to have the eastern boundary of the strip where it crosses that river more accurately marked, and this led to a movement, in 1873–'4, on the part of the British and United States governments, for a joint survey of the boundary. In a conference at Washington, February 15, 1873, between Secretary Fish and the British minister, Sir Edward Thornton, it was stated by Mr Fish that a survey of the entire boundary, as estimated by the engineers, would cost, for the United States alone about $1,500,000, and it was suggested that it would be found sufficient to fix the boundary at certain determined points, and there were named the head of Portland canal, "the point where the boundary line crosses the Rivers Skoot, Stakine, Taku, Iselcat, and Chilkaht, Mount St. Elias," etc. The legislative assembly of British Columbia, in petitioning the Canadian government for a survey, refers to it as "the boundary of the 30-mile belt of American territory." Sir Edward Thornton communicated to the Foreign Office the result of his conference with Secretary Fish, and it was then submitted through the Colonial Office to the Canadian government, by whom it was referred to the surveyor general, Dennis, who reported favorably upon the plan. He restated the points to be determined and enumerates the rivers "Skoot, Stakine, Taku, Iselcat, and Chilkaht," and says that in his opinion "it is unnecessary at present (and it may be for all time) to incur the expense" of any other survey than that named. It was thereupon determined that such a joint survey should be made, the total cost of which the British boundary commissioner, Major Cameron, estimated might reach $2,230,000. The plan was not at that time carried into execution because of

*Report, etc,, p. 140:

"1738. During the late war which existed between Russia and England, I believe that some arrangement was made between you and the Russians by which you agreed not to molest one another? Yes; such an arrangement was made.

"1739. By the two companies? Yes; and government confirmed the arrangement.

"1740. You agreed that on neither side should there be any molestation or interference with the trade of the different parties? Yes.

"1741. And I believe that that was strictly observed during the whole war? Yes.

"1742. Mr. Bell, which government confirmed the arrangement, the Russian or the English, or both? Both governments."

the failure of the United States Congress to vote the appropriation.* This fact is cited to show that in 1872–'3 the British and Canadian officials understood that the eastern boundary of the strip crossed the rivers named at some point above their mouths, which are at the head of inlets, including Lynn canal, and that the boundary could not, therefore, cross any of these inlets.

In 1876 a Canadian official was conducting one Peter Martin, charged with some offense, from Canadian territory across the strip of American territory traversed by the Stikine river. Having camped for the night at a point 13 miles above the mouth of the river, Martin, in an attempt to escape, committed an assault on the officer, for which, on his arrival at Victoria, B. C., he was tried and condemned to imprisonment. Martin complained to the consul that he was an American citizen, and the Secretary of State presented the case to the British government. A surveyor was dispatched by the Canadian government to the Stikine river to locate the exact spot of the assault, which he reported to be in United States territory under the treaty of 1825. Thereupon the Canadian Privy Council, following the indication of the British Foreign Office, decided that as the offense for which Martin was convicted was committed in American territory, he must be released, and he was accordingly set at liberty.†

A further indication of the views of the British government respecting the boundary line of the strip is found in the action of the two governments in agreeing upon a provisional line on the Stikine river in 1878. The Canadian and American customs outposts on that river came in conflict in the vicinity of a point approximately 30 miles in a straight line from its mouth, and caused considerable friction. The Canadian government dispatched a surveyor on its own account to survey the river and fix a boundary line, he having been supplied with the text of articles 3 and 4 of the treaty of 1825. He made his report, and claimed to have found a range of mountains filling the requirements of the treaty at a point which crossed the river about 25 miles above its mouth, or about 20 miles in a straight line from the coast. A copy of this report and accompanying map were sent through the British Foreign Office to the minister at Washington, by whom it was submitted to the Secretary of State, with a view to securing his acceptance of this boundary, and Secretary

* Canadian Sessional Papers No. 125, vol. xi, pp. 11, 21, 28, 36.

† Canadian Sessional Papers cited, pp. 57, 59, 143, 152, 155. U. S. Diplomatic Correspondence, 1877, pp. 268, 271.

Evarts consented to accept it as a provisional line, without prejudice to the rights of the parties when the permanent boundary came to be fixed.*

The foregoing citations show that whenever the British government or those holding interests under it have had occasion to express their views as to the strip of territory secured to Russia under the treaty of 1825 they have made it plain that they regarded it as an unbroken strip on the mainland following around the inlets of the sea, and that the interior waters enclosed in such strip were Russian or American territorial waters.

When, in 1822, the Duke of Wellington was about to depart as the British plenipotentiary to the International Congress of Verona, he carried with him an instruction from Secretary Canning to bring the protest of his government against the ukase of 1821 to the attention of the Russian plenipotentiaries at that congress. After obtaining the opinion of the great English lawyer, Lord Stowell, he wrote:

> "Enlightened statesmen and jurists have long held as insignificant all titles of territory that are not founded on actual occupation, and that title is, in the opinion of the most esteemed writers on public law, to be established by practical use." †

There is no claim or pretense that the British authorities or subjects ever occupied any of the territory now in dispute except under the lease cited, or ever exercised or attempted to exercise any acts of sovereignty over the strip or waters enclosed by it. On the other hand, let us examine the acts of occupation and sovereignty exercised by Russia and the United States. First, we have seen that very soon after the treaty of 1825 the Russian government published a map claiming the strip of territory and all the interior waters of the sea enclosed by it. Second, the Russian American Company established forts and trading posts within the strip. Third, by virtue of the lease cited, which was a recognized assertion of its sovereignty, it temporarily transferred these forts and posts to the British company. Fourth, at the termination of the extended lease it reentered and took possession and remained in possession till the cession of Alaska to the United States. Fifth, it received the allegiance of the native Indians inhabiting the strip, and exercised control and supervision over them. Sixth, immediately after the cession in 1867 the Department of State of the United

* U. S. Foreign Relations, 1878, pp. 339, 346.
† Fur Seal Papers, etc., vol. 4, p. 388.

States likewise caused a map to be published, setting forth the bounds of Alaska in accordance with the treaty of 1825, and the same claim as to the strip was thereon made as by Russia in its map of 1827. Seventh, upon the transfer of Alaska a portion of the United States army was dispatched to occupy the territory and a detachment was stationed for some time on this strip of the mainland. Eighth, since the cession post-offices and post-routes have been established and maintained at various points on the strip. Ninth, custom-houses have likewise been established and duties collected therein. Tenth, government and mission schools have been maintained, and notably so, for near twenty years, at the head of Lynn canal. Eleventh, the revenue vessels of the United States have continuously since the date of the cession patrolled the interior waters surrounded by the strip to enforce the revenue and other laws of the United States. Twelfth, the naval and revenue vessels of the United States have for the same period exercised acts of sovereignty over the Indian tribes inhabiting the strip, especially about the head of Lynn canal, and the latter have yielded unquestioned allegiance to the United States. Thirteenth, in the Census of 1880 and 1890 all the Indian tribes inhabiting the strip were included in the population of the United States and so published in the official reports. Fourteenth, the territorial government of Alaska has exercised various and repeated acts of sovereignty over the strip and interior waters enclosed by it, and the writs of the United States courts have run throughout its whole extent. Fifteenth, under the territorial claim of the United States and the protection of the government, citizens of the United States have entered and occupied the strip, built cities and towns, and established industrial enterprises thereon.

All the foregoing acts have taken place without a single protest or complaint on the part of the British or Canadian governments, except that some friction has occurred between the customs outposts as to the exact demarcation of the eastern line of the strip. For the first time a statement was presented by the British government to the Government of the United States on the 1st of August, 1898, developing the fact that a difference of views existed respecting the provisions of the treaty of 1825 relating to the strip of territory and the waters embraced by it. Two months previous an agreement had been reached between the two governments for the appointment of a joint commission for the adjustment of pending questions of difference between the United

Prepared in the Office of the U.S. Coast and Geodetic Survey, Treasury Department

MAP No. 12

BOUNDARY LINES OF AMERICAN AND BRITISH CLAIMS

States and Canada. Soon after the commission met at Quebec on August 23, 1898, it was made known for the first time that the British government would claim that the boundary line should run from the extremity of Prince of Wales island, along the passage known on modern maps as Pearse canal, to the head of Portland canal, thence directly to the coast, and follow the nearest mountains to the coast, crossing all the inlets of the sea, up to Mount St Elias. Such a line would give the United States a strip of an average width of less than five miles, broken at short intervals by the arms of the sea, and would transfer the greater portion of all the inlets to British territory (see map No. 12). As the Canadian government, with the consent of the British Foreign Office, has made public the protocol or official journal of the Joint High Commission, showing the result of its deliberations on the boundary,* I violate no diplomatic propriety in referring to these facts. The protocol shows that, after sessions of several months, the commissioners were unable to agree. In a failure of concurrence as to the language of the treaty of 1825, one of the two methods of adjustment was proposed by the British commissioners. The first was a conventional boundary, by which Canada should receive, by cession or perpetual grant, Pyramid harbor, on Lynn canal, and a strip of land connecting it with Canadian territory to the northwest, and the remaining boundary line to be drawn in the main conformable to the contention of the United States. The American commissioners, not being prepared to accept this proposition, the alternative was submitted by the British commissioners of an arbitration of the whole territory in dispute, in conformity with the terms of the Venezuelan arbitration, and in response to an inquiry from their American colleagues whether the selection of an umpire from the American continent would be considered, the British commissioners replied that they would regard such a selection as most objectionable.

The American commissioners declined the British plan of arbitration, and stated that there was no analogy between the present controversy and the Venezuelan dispute; that in the latter case the occupation of the territory in question had from the beginning been followed by the constant and repeated protests and objections of Venezuela, and the controversy was one of long standing; but that in the case of the Alaskan territory

* Fourth session, 8th Parliament, 62 Victoria, 1899. Protocol No. LXIII of the Joint High Commission, Washington, respecting the boundary between Alaska and Canada. Printed by order of Parliament, Ottawa, 1899.

there had been a peaceful and undisputed occupation and exercise of sovereignty for more than seventy years, and that no question respecting this occupation and sovereignty had been raised by the British government until the present commission had been created. They challenged their British colleagues to cite a single instance in history where a subject attended with such circumstances had been submitted to arbitration, and in declining the British proposition they proposed the plan of settlement which had been framed by Secretary Olney and Sir Julian Pauncefote in 1897. The treaty which these two distinguished statesmen framed so carefully marked the most advanced stage yet attained for the peaceful settlement of international questions not susceptible of adjustment by diplomatic negotiation. In that convention, drafted with a view to "consecrating by treaty the principle of international arbitration," they provided that all such questions should be submitted to arbitrators and an umpire, except territorial claims. They recognized that territorial questions affected so vitally the sovereignty and honor of nations that as to them a different method was necessary, and they provided that these should be submitted to a tribunal of three judges of the highest standing in each country, and that a binding decision could only be rendered by a vote of five of the six judges.* The American commissioners embodied this plan in their proposition for the settlement of the Alaskan boundary dispute, with the modification that a binding decision might be rendered by four of the six judges.

This proposition was rejected by the British commissioners, and, no other plan being brought forward, the Joint High Commission adjourned with the understanding that the boundary question should be referred back to the two governments for further diplomatic negotiations.

* U. S. Diplomatic Correspondence, 1896, art. vi of treaty, p. 239.

LIFE ON A YUKON TRAIL

By Alfred Pearce Dennis, Ph. D.

(Continued from the October number)

On Saturday, April 9, 42 days after our departure from southern British Columbia, actual work was begun on the railway survey. The experience of snow-shoeing 10 or 12 miles, with a day's work thrown in between, was trying at first. Any one who has worked on snow-shoes can estimate the labor of moving that distance over "rotten" snow. The crust yields at every plunge, and many pounds of snow pour in upon the shoes like loose gravel. The dead weight must be lifted when the shoe is withdrawn above the crust for the next step. The strain tells severely upon the back and the adductor muscles of the lower limbs. About 5 p. m. actual work on the line ordinarily ceased, but the return to camp would not infrequently require as much

as three hours. On one of these outings it happened that the line lay along a sunny slope of the mountain. Every one's moccasined feet got thoroughly soaked. After leaving this genial spot the wet moccasins became frozen. The back-chainman and the rodman were the first to exhibit signs of human weakness. They halted, sat down on a log, and wept with pain and vexation. A fire was kindled and the tearful rodman and weeping back-chainman were thawed out. This circumstance was regarded as a singularly felicitous one during the remainder of our stay in the wilderness from the standpoint of such men as Dan the axman, whose sense of humor, it seems, had been exquisitely developed.

There was always a period of reviving spirits after the midday lunches of bacon and beans which "Calgary" carried on the line in his old lard can; but after four or five hours more of work the men would drag into camp about dark, one at a time, tired and bedraggled. So the days went by, one much like another. Toward the first of May it was possible to leave the cumbersome snow-shoes in camp. Plunging through the rapidly sinking snow with low rubber shoes and "Dutch socks" was much less fatiguing, although it involved wet garments to the knees. Our survey line was completed to the Big Tahltan. We ascended this valley to the source of the stream in the second divide. Here, at an altitude of about 2,600 feet, we crossed the frozen surface of two beautiful lakes—Upper and Lower Coketsie. Crossing the summit, the general direction of the watercourses lay to the northwest. Launching on the Doo-de-don-Tooya one might float to the Inklin, and thence down the Taku to its mouth near Juneau, Alaska. Indians who professed to be familiar with the voyage down the Taku to the coast lived in forlorn hovels near the Shesley river. They were not of the Tahltan tribe and had no dealings with them. All the young bucks of the settlement were off on a caribou chase. A withered old man, who was crouching over some dying embers in his wickiup with some grimy Klooches, gave us to understand that the winter had been a hard one, and that salmon were expected soon in the Shesley.

These Shesley Indians are anthropologically of a Mongolian type, with low foreheads, flat noses, and brachycephalic skulls. The principal occupation of the born-to-drudgery women is to collect fuel for the fires which smoulder in the wretchedly damp and chilly wickiups. No one could complain that laundry work was a burden in such a settlement. Like the inhabitants of a Thlingit

rancheria, these people seem to have turned the old Greek and Roman religion of external cleanliness into a sin. But if the outward and visible signs of sanctity can ever take the form of uncleanness, certainly the "odor of sanctity" can never again be considered a mere figure of speech. Three out of five of these miserable creatures seemed to suffer from lung or throat diseases.

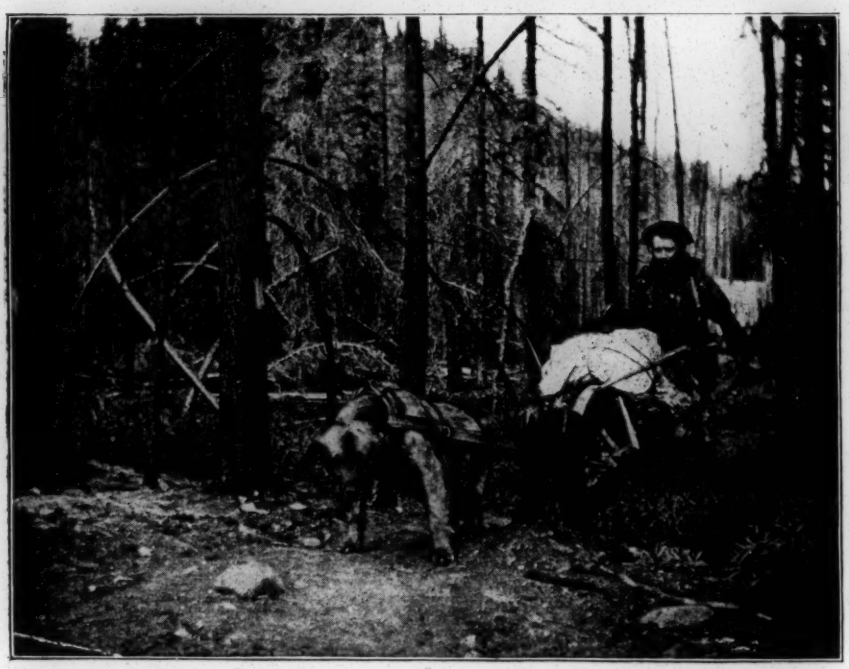
The Stikine opened on May 7, two weeks earlier than usual, and a week later our mail, which had arrived in Glenora by steamboat, was sent in to us by a special messenger of the company.

CAMP ON TESLIN TRAIL

Most of the letters and papers were two months old. It was noticeable that few of the men received any letters or evinced any interest in the arrival of the mail. One man in the party admitted that he had not written to any of his home people in the East for nine years, and others had allowed several years to pass without writing.

By May 20, small, light-laden parties were slowly pushing along the trail toward Teslin lake, with their entire outfits stowed upon their dogs' backs and upon their own. They reported the daily

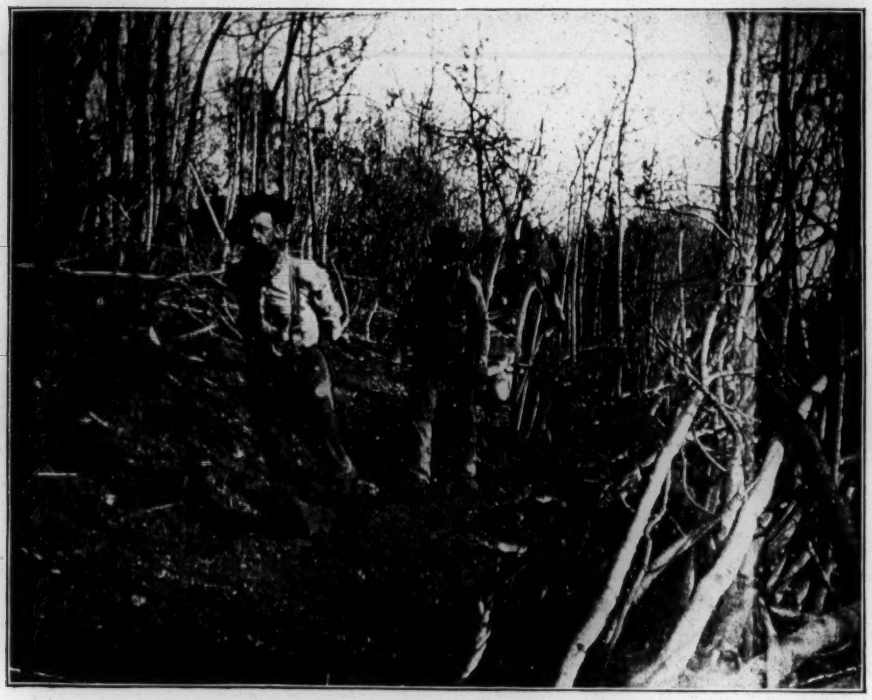
arrival of steamers at Glenora, and told of the vast accumulation of freight, and of the congestion of Klondikers at that point. Many of these men, it seemed, had failed in their attempt to reach Glenora over the ice. They had been forced to camp on the river bank until the ice broke up. In this situation, their horses, on which they had relied on packing their outfits to Teslin, had perished. On arrival in Glenora by steamer the men had either sacrificed their provisions and were pushing into the Yukon with



WHEELBARROW WITH LOAD OF 300 POUNDS

only a few months' stores, or else were sitting idly by their outfits on the banks of the Stikine.

One swarthy frontiersman was taking in 350 pounds, distributed on the backs of himself, his partner, his dog, and his squaw. Others, with rude wheelbarrows, were making five or six miles per day with a load of 250 pounds. Usually a well-trained dog tugged indefatigably in the traces ahead. The narrowness of the pathway absolutely excluded any ordinary two-wheeled vehicle from the trail. The exigencies of the situation brought out some remarkable one-wheeled concerns. The " go-devils,"



ONLY TWO-WHEELED VEHICLE SEEN ON TESLIN TRAIL

to use the technical name of these vehicles, were fashioned in the wilderness, with only an ax and whipsaw as instruments of construction. Thongs of buckskin bound the parts together, nails being reserved for future use in boat-building. Where the center of gravity of these "go-devils" was low, two men could balance a load of 500 or 600 pounds in the roughest places.

Men now appeared whose faces were familiar. They were men whom we had passed on the river more than three months before. These belated wayfarers had an exceedingly rough appearance. The venture seemed to have particularly attracted the "bronze beards" and "barbarossas." A tangle of long hair, worn in portières over the ears, and an unkempt, bushy beard, commonly of a reddish hue, half concealed, but also strongly revealed in all their stern aspects, faces which bore the sad traces of hardships, of deprivations, of bitter disappointments. Nearly all had tales of losses of provisions through the ice, of losses of animals from starvation, of exorbitant transportation rates over distances which they had hoped to traverse without financial

loss. Failure was not more clearly written on the ranks of the Grand Army in its retreat through the snows of Moscow. These pilgrims to the shrines of Mammon no longer expressed the feverish, fanatical hopes of the inexperienced gold-seeker. Confidence had waned, and they spoke of their mission apologetically and not with enthusiasm. All regretted that they had chosen this route, and they told of men who, unable to take steamer passage, were descending the Stikine in small boats to make an attempt to reach the Yukon valley by other routes.

One naturally asks why these stranded Klondikers did not have their outfits packed in to Teslin lake on horses. The condition of the trail precluded this means. The minimum rates for transportation over the 150-mile stretch of mountain forest and swamp was $800 per ton. Horses were expensive and rarely lasted through the journey. The sixty miles of high level trail to a point beyond the Shesley river was easily passable for a pack-train when we left the country, but the region beyond was a wild chaos of willow swamps and muskeg morasses, permeated with streams of all sizes, from tiny rivulets to the unfordable Nahlin.

GO-DEVIL FLAT CAR DRAWN BY A HORSE — 600 POUNDS LOAD

In some places in the lowlands the ice still lay intact beneath a heavy carpet of moss and heather as late as the middle of June. But for this moss the swamps would have rapidly dried out under the 18 hours of sunlight.

As to the class of men met on the trail to the Yukon, they were, as a rule, rough and common-place, as might have been expected. Nearly all had the outward appearance of desperadoes. Their dress contributed to their savage appearance. Wolf-skin caps, red mackinaws with penitentiary stripes, and yellow, blanket-

ENGLISH ACTORS STRANDED ON TESLIN TRAIL

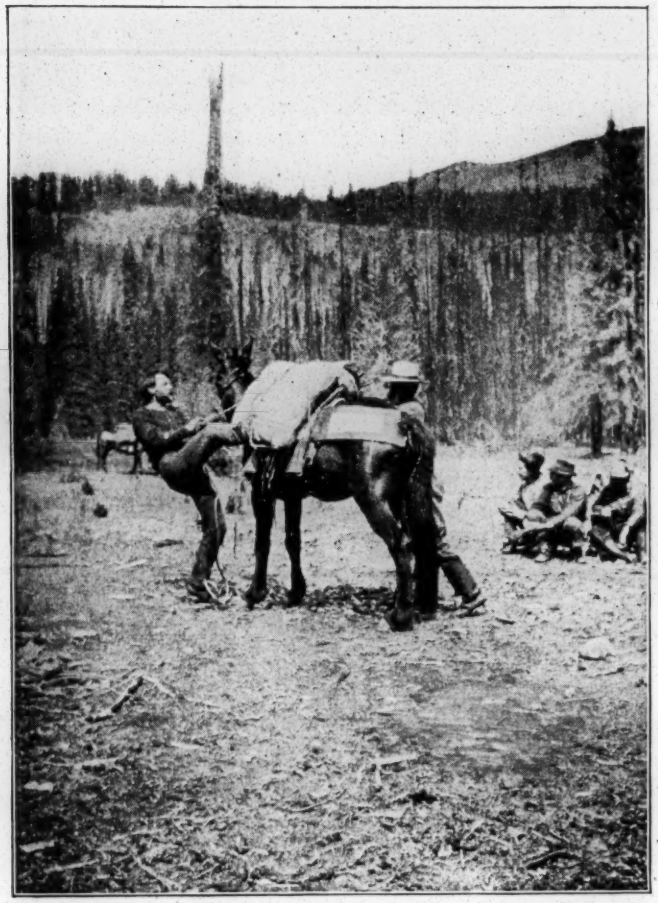
lined, canvas jackets were most in vogue. The award for the most ingeniously bizarre costume rightfully belongs to a man from the Palouse country, in Washington, attired in a cowl and toga of striped bed-tick lined with muskrat skins, the wearer impartially distributing novelty to the eye and malodors to the nose at every stage of his progress.

Two English actors were encountered who were depending upon their voices for means of transportation in making a tour of the world. They were stranded on Teslin trail. One soon grows familiar with the type of old knock-about like Dan, the

axman. In the heart of such a man a good dog supplies much of the place of family, church, and state. Such men are not so much immoral as unmoral. They are not introspective and harbor no unavailing regrets for the past nor morbid anticipations for the future. "Have pleasure while you live," say they, "for you will be a long time dead." During the drudgery of work in the wilderness the mind dwells in complacent reminiscence on some wild bit of revelry when last in town or fondly anticipates the next opportunity of squandering a month's wages in one night of boisterous bedevilment. The generosity of these men is something larger than any formal rule of moral obligation. It extends to the last crust and freely puts life in pawn. After the day's work on the line, the men would usually gather in the largest of our tents for conversation. The talk generally ran to such subjects as gains and losses at poker or faro, the grievances of the Cœur d'Alene miners, the scale of wages at Butte, or personal vicissitudes when "dead broke." Occasionally talk drifted to higher themes, as when Charlie Collins, who had played a bass horn in a fireman's band, ventured on musical discussion, or Jim Coyle on literary criticism. Collins remarked one evening that he had not been to church since he had picked up his knowledge of music. "When a man gets to know music right," he observed, "he can't sit under the bum alto singing of a church choir." "The sweetest music I ever heard," added "Calgary," the teamster, "was the bell on the neck of my old lead mare on the Edmonton trail."

One Sunday evening Coyle, the litterateur, reviewed *Quo Vadis* in the cook tent. He brought out very prominently the decadent institutions of the Eternal City under Nero. At the close of the recital, Collins, who had listened attentively, remarked that Rome under "that tough mayor must have been run as wide open as Wrangell."

We were working one warm June day about four miles from camp on a surface of wet moss and heather in a heavy spruce thicket. The mosquitoes had been active for a week, and that day they were particularly exasperating. We had no mosquito netting, but every one had swathed neck and face in a cheesecloth fabric that had been wound about the bacon. The back flagman and the transitman had just kindled for the twentieth time that day "smudges" to enjoy in the smoke thereof a few minutes' respite from the tormenting insects. At this conjuncture a messenger from Glenora appeared with a proclamation of



CINCHING UP — TESLIN TRAIL

emancipation. He brought the news that the Canadian government had withdrawn its support from the railway project; that the building of the road had consequently collapsed; that the engineer corps had been ordered out of the country. The next day we set out for Glenora, whence, after a wait of three days, during which two of the men expended the earnings of more than three months, we took steamer passage down the river.

It is a pleasant thing to quit this country at any time, but particularly so in summer. The month's toilsome journey up the river over the ice is retraversed in 12 hours by the swift river steamers that must at times outrun a 12-knot current in order

to get steering way. Some day an artist will take a summer's outing on the Stikine* and with pencil and palette make its glaciers famous. It is delightful to sit on the upper deck of one of the river steamers in the mellow light of evening and shoot down the swollen stream long after the sun has dipped behind the mountains. By 9 in the evening the untrodden peaks of the giant mountains are still a rosy red; at 10 o'clock, in an arrested riot of jagged ridge and crest, they stand forth distinctly in line and color against the pink sky-line. Here and there long granite claws, picked clean by glaciers of a past age, run down into the lowlands and are lost there. But best to be observed are the glaciers of the present day. High upon the summits the everlasting snow gleams spotless in the fading light; lower down rise the jagged pinnacles and upheaved billows of the glacier itself, a study in blue; while below it and nourished by its waters lies the dark-green spruce forest fringing the banks of the rushing river. By midnight detail and color are lost in dusky shadows, but the rose-colored light still lingers mayhap before the traveler's eyes as he realizes that he is speeding southward to home and to civilization.

THE RATIONAL ELEMENT IN GEOGRAPHY

By W. M. Davis,

Professor of Physical Geography in Harvard University

Abundant conference and correspondence with teachers of all grades in recent years make it evident that the introduction of the "causal notion in geography," as McMurry has phrased it, is warmly welcomed wherever it is well understood. The traditional lists of capes are doubtless still memorized and recited in some schools, to the exclusion of examples involving explanation and correlation as elements of geographical study; but such schools do not rouse the pride of progressive superintendents. Enterprising teachers are constantly striving toward a more rational treatment of geography, and with every advance in their own understanding of its problems empirical statements are replaced by reasonable explanations in their teaching, much to the advantage of the scholars.

* In the January, 1899, number of The National Geographic Magazine is an excellent description of the Stikine river by Miss E. R. Scidmore.

The two chief causes of the change now in rapid progress from an empirical to a rational geography originated outside of the limits of geography proper. One of the causes is the understanding of the evolution of land forms that has been contributed by geology; the other is the belief in the evolution of organic forms contributed by biology. To these must be added the better knowledge of meteorology through the application of physics to the study of the atmosphere, as well as the results of strictly geographical exploration of lands and seas; but all this is of secondary importance alongside of the revolution that has been worked by the acceptance of inorganic and organic evolution. The study of the earth in relation to man, as now illuminated, has become wonderfully more interesting at this end of the century than it was in Ritter's time in the beginning, and we may well believe that the explorations of the twentieth century will profit greatly by the more sympathetic appreciation of nature that geographers will then carry into the field.

It will not be possible to consider in this article any of the organic elements of geography, and among the many inorganic elements of the subject attention can now be given only to the lands; the earth as a globe, the atmosphere, and the ocean cannot be included. Furthermore, only one of the most practical aspects of land study will here be touched upon, namely, the art of giving an accurate and effective verbal description of land forms: a description that shall be at once accurate in representing the essential facts of nature, and effective in being intelligible to its hearers or readers.

It is not a simple matter to frame a good verbal description of geographical forms. The description must not attempt the impossible by undertaking to set forth facts of form and relief with the fidelity of a good model, or by trying to indicate facts of distribution as accurately as they are shown on a good map, or by seeking to present perspective impressions from a single point of view, such as are given in good pictures. The patience of the hearer or reader would be sorely tried if the perseverance of the speaker or writer tempted him to indicate by words the innumerable details that find proper expression by plastic, graphic, or pictorial art. Verbal description has an object of its own. It must be devoted chiefly to summarized facts, whether they are details or generalities, and it must deal with new facts by means of their likeness or contrast with certain previously known types whose forms serve as the standards upon which descriptive terms are based.

Now it is curious that while geographical surveying has a well recognized place as a technical art, and while geographical drawing and modeling are understood to require well-trained skill, there has been comparatively little conscious attention given to training students in the geographical description of land forms. There can be no question that the latter art more generally deserves cultivation than the others, for speech is heard and books are read upon geographical subjects more often than maps, models, and pictures are consulted; yet practical instruction and exercise in the description of land forms are seldom made part of school or college teaching. Perhaps it is for this reason that books of travel so generally fail to give their readers a clear idea of the regions with which they are concerned. As a means of correcting this error of omission, practical exercises should be introduced in connection with recitations or lectures in physical geography—physiography—and serious emphasis should be laid on the translation into words of the facts observed either directly on the face of nature during field excursions or upon models, maps, and pictures in the laboratory.

When the attempt is made to describe geographical forms in spoken or written language three classes of more or less technical terms may be employed, as was shown by Penck in a communication to the Sixth International Geographical Congress in London, 1895. One class is empirical and well rooted in our language, including such nouns as hill and mountain for smaller and larger eminences, ridge and valley for elongated elevations or depressions, as well as many adjectives of geometrical association, such as precipitous, steep, rolling, level, and so on. Another class introduces phrases suggesting a relation between structure and form, and these phrases are all modern, such as monoclinal ridge, anticlinal mountain, synclinal valley, and so on. A third class employs terms that imply an understanding of the evolution of the forms concerned, and this class is the youngest of the three; here we find consequent, antecedent, and superposed rivers, subsequent and obsequent valleys, maturely dissected plateaus, and partly regraded slopes. None of the classes contains as many terms as it needs.

The first or empirical class has the merit of simplicity and safety, and some geographers would therefore hold closely to it, as if forgetting that such a method of description implies the neglect of those mental faculties which have been so successfully employed in investigations that make "scientific use of the imag-

ination," as Tyndall put it. The second or structural class has at least the negative merit of not being dangerous, but it fails to satisfy the student who has left empiricism in search for rationalism in his geographical work. The third or explanatory, rational, and genetic class is stimulating to the investigator, but it is objected to by conservatives as involving grave risk of error, because the explanations on which its terms are based may be incorrect. It is interesting to inquire which of these classes of terms a geographer shall employ in his studies or which a teacher shall use with his scholars.

The practical worker will at first probably employ some terms from all three classes, because he finds no one class complete in itself. According to his temperament, he will feel a preference for one class or another, and he will very likely venture now and then to suggest new terms appropriate to his favorite class, if his attention and interest are directed closely to a special field of research where existing terms are insufficient for his needs; but as soon as he begins to use the genetic class he finds that the success of his work is marked by the freedom and confidence with which he can use explanatory terms, and that just as the greater includes the less, so the genetic include the empirical and the structural. The teacher, as well as the investigator, will then feel an increasing discontent with the blind and dull empirical terms, however safe they may be, and with the structural terms, however essential they may be. He will press forward in the hope that all the land forms with which he is concerned may in due time be vouchsafed as full and certain explanatory description as many of them have already received.

A double reward comes to the teacher who leads his scholars beyond empirical description toward rational explanation: a much greater interest is excited in geography as its meaning is found to be richer, and soon afterward a greater power of observation is developed in response to the discovery of many correlations among the elements of land forms that springs from their explanation. Herein lies the practical value of a method that may thus far seem chiefly theoretical.

A concrete case may be illustrated by the diagrams on pages 470 and 471. Empirical description will see a narrower and a broader canyon: the walls of the first consist of cliffs and slopes; the walls of the second consist of cliffs, slopes, and platforms. No correlation is sought for between structure and form, for empirical description does not concern itself with correlations.

Structural description recognizes a correlation between the horizontal strata of which the canyoned plateau is built and the attitude of the belted cliffs and slopes in the canyon walls, and between the relative resistance of the various layers and their surface expression, for the harder strata determine the cliffs and the weaker ones determine the slopes; yet the consideration of structure alone will not lead to a just comparison of the two diagrams, inasmuch as the structures are alike in both, and the forms represented depend on the less development of one and the greater development of the other canyon; but structural description takes no account of development or of the resulting correlations of form and time.

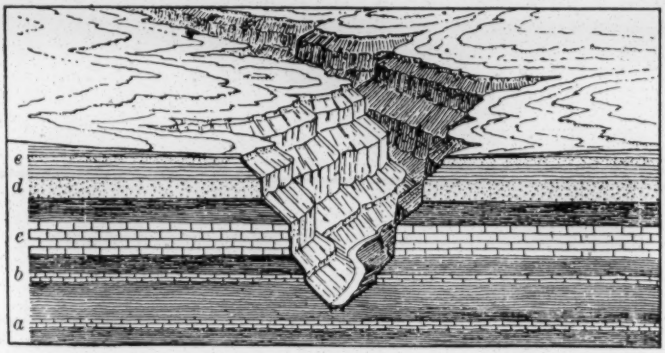


DIAGRAM OF NARROW CANYON

From Davis and Snyder's Physical Geography, by courtesy of Messrs Ginn & Co.

Genetic or explanatory description recognizes and employs all that has gone before, and goes further. The variety of form in the canyon walls is seen to be a necessary consequence of the action of the weather on horizontal layers of unequal hardness. The narrower canyon is soon perceived to be only a younger stage of the wider one, and the platforms of the wider canyon are recognized as characteristic features of an approaching maturity of development. Moreover, the platforms are found to be systematically placed between the slope from a weaker, faster-retreating cliff and a stronger cliff next below it, and not *vice versa*. Structure, process, and time are thus all rationally correlated with form, and all these elements interact most suggestively in framing a verbal description. It cannot be doubted that a student who has gained an understanding of such correlations will give a much better account of forms like those here illus-

trated than one who trusts to observation without explanation. Sharp-eyed as the student may be, his outer sight is greatly aided by his insight. Actively as he may traverse his field of work, his path will be determined only by a patient endeavor to see everything, unless it is guided by a well-planned search for critical points. Accurate as his notes may be, they run the danger of being abundant rather than intelligible, if they are empirical without being explanatory. And yet, with all the advantages that come from successful explanation, the conservative teacher may still hesitate to advocate this method of description because of its inherent dangers. How, then, can its dangers be reduced to so moderate a measure that they may be

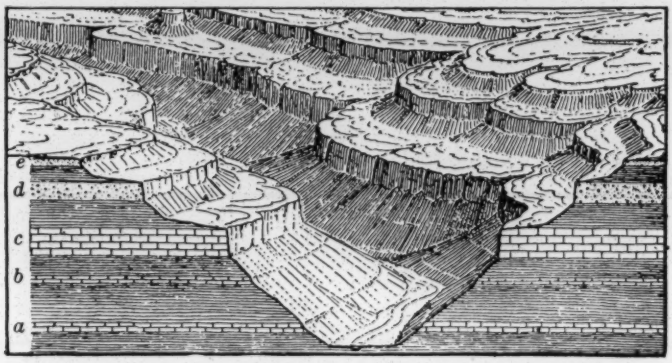


DIAGRAM OF WIDENED CANYON

From Davis and Snyder's Physical Geography, by courtesy of Messrs Ginn & Co.

set aside as of much less import than its advantages? This question opens the whole subject of reform in the teaching of geography.

A reasonable safety in explanatory description can be attained by well-taught students who are first practised on empirical description in their elementary work, and who are gradually and systematically led forward to an explanatory description based on a comprehensive understanding of the evolution of land forms. They must be under the direction of teachers who have had experience enough in field work to recognize if not to discover the geographical evolution of the home district. Field work must be an essential part of instruction in all grades of study, and an equally essential part must be a general scheme of geographical classification to which the student is gradually introduced and through which he may come to appreciate the

systematic development of land forms. Some idea of the changes that land forms slowly suffer should be given with the most elementary teaching. Streams should be recognized as not consisting of water alone, but of water that bears along the waste of the land. The slow crumbling of rocks and the formation of soil under the attack of the weather, the slow movement of the soil cap by washing and creeping, and the slow changes of form that result from weathering and wasting should all become familiar in early school years. A child need not wait till he studies chemistry and mineralogy to recognize that iron rusts and rocks weather; but when chemistry and mineralogy are reached he will gain a fuller understanding of these processes. He need not wait for a formal course in geology to learn that rock waste washes and creeps down hill, for this topic is as essentially geographical as the movement of rivers, ocean currents, and winds. He may very early be convinced that the earth has existed through a long period of time, for the changes of form that he soon comes to appreciate must have required ages for their accomplishment: great periods of time thus become as familiarly associated with the earth as great distances through space. An excellent introduction to geology is thus gained through physical geography, but a true geographical flavor is retained by always considering processes of change as a means of explaining existing form rather than an end of study in themselves.

When the student has grasped the idea that existing land forms are the product of changes worked by ordinary processes on earlier forms he should begin the systematic study of land forms. The school grade, the school equipment, the school surroundings, the text book, and, above all, the teacher should determine whether this more advanced branch of geography should be set forth in one way or another. It may be presented inductively, beginning with local examples in the home neighborhood, going on through a chosen series of forms illustrated by models, maps, and pictures, and thus gradually building up broad generalizations that will serve as guides for observation, explanation, and description in all parts of the world. Or the subject may be presented deductively, expanding from simple ideal cases to examples of greater and greater complexity until the systematic scheme embraces a wide variety of types, all of which receive verification when confronted in due order with examples of actual land forms. But in either case the student must go on from the simple correlations observed between the minor elements of local forms in

his elementary study and advance toward much broader correlations by which the forms of large areas are brought into harmonious association. Systematic geography will thus come to serve the same important object as systematic zoölogy or botany; it will provide convenient means of assembling a great body of facts in what is believed to be their natural relations, and it will devise an accurate terminology by which rational and effective description can be given to a vast variety of land forms through their likeness to or difference from many standard types.

In my own experience, the dominating principle of systematic geography is that of the geographical cycle, of which some account has been given on an early page of this Magazine (vol. i, 1889, p. 20), and in various later articles, and of which a fuller statement appears in the current number of the (London) *Geographical Journal*. With increasing experience in its application, the more comprehensive, powerful, and practically useful has the principle of the cycle become. It is now an indispensable guide in observation as well as description, because it leads off a whole procession of facts, marshalling them in good order. From its earliest and most general application to consequent streams, it is now extended to streams of many kinds, systematically acting on one another in the rearrangement of their drainage areas during their progressive adjustment to the structures on which they work. The cycle accommodates itself easily to the peculiar conditions of arid or frigid climates, and to the special conditions of the seashore. It stimulates the recognition of real homologies: the rudimentary conception of land drainage as limited to streams of water has thus been expanded so as to include all lines of down-hill movement, whether of water or waste; and the generalized river is thus seen to cover all the surface of its basin. A graded condition or "profile of equilibrium" is first attained by the trunk river on areas of weak rocks and last attained by the creeping waste near the divides on areas of resistant rocks, and the geological theory of evolutionary uniformitarianism receives new support from the correspondence between the generalizations thus reached and the facts of nature. However theoretical all this may seem to be, I do not believe there is any more practical means of land-form study than is found in the application of the principles here referred to. I earnestly urge teachers of whatever grade to make themselves acquainted with the geographical cycle, and to introduce its elements appropriately in their teaching.

EDWARD ORTON, LL. D.

Less than 90 days ago the sessions of the American Association for the Advancement of Science in Columbus were presided over by the distinguished ex-president of the Ohio State University, Dr Edward Orton. On October 16, with only a few hours' warning, Dr Orton passed away. The place which he had won in the scientific world will be hard to fill. Dr Orton graduated from Hamilton College in 1848. Since 1869 he has been state geologist of Ohio, and since 1873 professor of geology and for some years president of the Ohio State University. Many volumes and reports on the geology of Ohio and the natural-gas supply of the United States are the evidence of his original investigations. In 1897 he was president of the Geological Society of America. *Science* in its report of the Columbus meeting has truly described Dr Orton as a man " honored and beloved of all."

NATIONAL GEOGRAPHIC SOCIETY

Owing to the press of his official duties as the Hydrographer of the U. S. Geological Survey, Mr F. H. Newell has been compelled to resign the secretaryship of the National Geographic Society, an office which he has so ably and zealously filled during the past two years. As an evidence of his efficient management, dating from December, 1897, it may be stated that the membership of the Society has increased from 1,300 to more than 2,200, and has received an impetus that promises in the near future to greatly enlarge that number.

Frederick Haynes Newell was born in Bradford, Pennsylvania, March 5, 1862. After a course at the common schools of Needham, Massachusetts, he entered the Massachusetts Institute of Technology at Boston, where he graduated with high honors as a mining engineer and geologist in 1885. Several years were passed in miscellaneous engineering in Pennsylvania, Virginia, and various sections of the United States. In 1888 he was appointed Hydrographer of the U. S. Geological Survey, a department then formed for the first time. Since then Mr Newell has planned and organized the systematic measurement of the flow and capacity of many rivers in arid regions of the West, his object being to ascertain the resources of water available for the

gradual reclamation of the vast tracts of desert land. In other words, a great work has been begun and is nearing completion in what Mr Newell has aptly termed "The Annexation of the West." Mr Newell is the author of "Agriculture by Irrigation," "Hydrography of the United States," "The Public Lands of the United States," etc.

As a successor to Mr Newell, the Society has been fortunate in securing the acceptance of the secretaryship by Mr Joseph Stanley-Brown. Mr Stanley-Brown needs no introduction to geographers. His long connection with the U. S. Geological Survey and with the Geological Society of America (of whose publications and proceedings he is the editor) have made him personally acquainted with the many geographers and diverse geographic interests of the country.

G. H. G.

GEOGRAPHIC LITERATURE

Mexico and the United States: A Study of Subjects Affecting Their Political, Commercial, and Social Relations, Made with a View to Their Promotion. By Matias Romero. Large 8vo, pp. xxxv + 759. New York: G. P. Putnam's Sons. 1898.

This is an exceedingly full handbook of Mexico, prepared by the man of all men most competent to do so, the late minister to the United States. It contains accounts of the topography, climate, mining, fauna and flora, peoples and their social condition, industries and trade, government and laws. Chapters are devoted to the Mexican free zone and to the workings of the silver standard in Mexico. The work is invaluable as a reference book concerning our sister republic.

H. G.

Alaska: Its History and Resources, Gold-fields, Routes, and Scenery. By Miner Bruce. 8vo, pp. 237, with 53 illustrations and maps. Second edition, revised and enlarged. New York: G. P. Putnam's Sons. 1899.

This is a popular compendium of information upon Alaska, written in a rather optimistic tone. It includes chapters upon history, topography, climate, agriculture, minerals and timber, fisheries, and other resources; the Eskimo and Indians; the work of the missionaries; the routes to the interior; the gold-fields, and closes with a chapter of suggestions to prospectors and a statement of the boundary dispute. The matter of the book is, for the most part, accurate, although in a region in which history is being made so rapidly it is extremely difficult to keep the printed page abreast of the fact. We might be disposed to take exception to the rather roseate view which the author appears to have regarding this possession of ours, for, so far as can be seen, Alaska has little future after we have reaped the harvest which Nature has produced, after we have collected its furs, its fish, its gold, and its timber.

H. G.

Rivers of North America: A Reading Lesson for Students of Geography and Geology. By Israel C. Russell. 8vo, pp. xv + 237, with 17 full-page illustrations and 23 cuts. New York: G. P. Putnam's Sons; London: John Murray. 1898.

Professor Russell is one of the few scientific men who can put the results of science in popular form. He comes to this work well equipped after a score of years devoted to travel and study. In the present book, which forms one of a science series, he treats of the life and work of rivers. It opens with a chapter on the disintegration and decay of rocks, followed by the laws governing the erosion of streams, the influence of inequalities in the hardness of rocks, the material carried by streams, either in suspension or solution, the deposits of streams, stream terraces, the development of streams, including the adjustment of their drainage basins under stable and unstable conditions of surface and climate. Finally he applies all these principles to the rivers of this country. It is a book which should be read by all students of physiography.

H. G.

Man and His Work. By A. J. and F. D. Herbertson. Black's School Geography Series. London: Adam and Charles Black.

This book is a symptom, if not an exponent, of a widespread and gratifying movement in modern geography teaching. It treats primarily of man's work—chiefly as it is influenced by his physical environment. It is intended to dwell on the *relations* between facts, and holds consistently to its purpose; but the generalizations made are sometimes too sweeping. American sky-scrapers have not yet been proven more durable than the stone castles of mediæval times; not all the soils of temperate lands are inferior. No attempt has been made to write a "pedagogic" book. Concrete examples are used to *illustrate* principles previously stated, not to *lead* to these principles by induction. The paragraph headings are generally good topics, though in some places irrelevant matter is introduced under them, as on page 3, where the effect of elevation on *trade* is treated, under the heading, Elevation and *climate*. The use of original narratives of travel has added much to the interest of the book, but the authors are frequently beguiled into too much detail. An exhaustive comparison of the agricultural methods of the Battaks and the Dyaks is out of place in a text book of this kind. The work needs editing. Guiding feathers were never, surely, *discovered* on arrows, and dead ancestors cannot be commemorated *among* the living. But the book is interesting from cover to cover, and no teacher who has read it will again be willing to confine her work to drilling on dead facts. The authors have plainly shown a better way.

Two Women in the Klondike: The Story of a Journey to the Gold Fields of Alaska. By Mary E. Hitchcock. With a map of Alaska and over 100 illustrations from photographs. 8vo, pp. 485. New York: G. P. Putnam's Sons. 1899.

This minute personal journal of the experiences of two women who went to the Klondike with the rush of gold-hunters in the spring of 1898 is a long story of small discomforts, but not a tale of peril or adventures. The ladies are introduced and described, socially vouched for by Mrs Elisha

Dyer, of New York, and the book is dedicated to Mrs Elisha Dyer. Mrs Hitchcock faithfully narrates all that she saw and heard, and that befell her. Her journey comprised the voyage by steamship to St Michaels, and thence by river boat and barge to Dawson, where she remained a couple of months, and then continued by boat up the Yukon to the foot of White pass, and over that summit to steamship service again. She lived in a great tent on the river side opposite Dawson, save for the three or four days given to a heel-blistering expedition to Eldorado creek and the diggings, and greater discomforts were probably never endured by well-to-do women for so little apparent reason. The reader continually asks *why?* and *what for?* as he follows the intimate record of their daily life and housekeeping, the repeated dish-washings, fire-buildings, and tent-proppings, the strange menus of their feasts of "canned goods," the shivering in heavy clothing and furs, and the frequent dreary rains, while the great Dane, the parrot, and the canary claim one's sympathies. Nothing is withheld; and manicuring, tender passages, land laws, customs regulations, the running of an animatascope, and the descriptions of toilets take their turn at equal length. The two women staked a claim in the Klondike, "grub staked" a prospector or two, built a cabin on their lot opposite Dawson, and after being fleeced and swindled in most grotesque ways came away none the sadder, apparently.

A Constitutional History of the American People. 1776–1850. By Francis Newton Thorpe. Illustrated with maps. Two vols., 8vo; vol. 1, pp. xxvii + 485; vol. 2, pp. xv + 520. New York and London: Harper & Brothers. 1898. $6.

There is suggestive originality in this title. Constitutional histories of the State abound, but not constitutional histories of a people. Very few among past or still-existent peoples afford the field for a constitutional history of themselves. Usually the term would be a misnomer.

In the preface Mr Thorpe states that this work "is the record of the evolution of government since the Revolution;" that "constitutional history is the history of a constituency which, consciously or unconsciously, is ever striving to promote its own welfare," and that the claim of popular government to authority is "its identification with the great principles of civilization." His first chapter opens with the words: "In the evolution of democracy in America," and the same phrase—"evolution of the democracy"—is emphasized on the second page. On the fifteenth page he strikes his keynote: "My theme is a history of the evolution of democracy in America."

To him "American democracy, like Greek poetry, is the presentation of the whole estate of man." But there is scholarly modesty in his words: "The historian shrinks from attempting to trace the record of democracy in all its phases. He must be satisfied, and indeed thrice happy, if he is able to trace, even imperfectly, the record of a single phase." He defines his own chosen phase as "the history of political and civil adjustments." This meager definition hardly hints at the multifarious nature of the theme or at the research and infinite patience required for its treatment. Intimate acquaintance was necessary with the numerous decisions of the Supreme Court and of the State courts

and with the dissenting opinions of the justices in the minority; with countless conflicting interpretations of sentences or words in the national Constitution; with opposite opinions on scores of subjects advocated in scores of constitutional conventions; with the various motions and votes; with the names and training and history of the members of those conventions. Hundreds of State constitutions, formulated, rejected, or approved, repealed or still in vigor, and tens of thousands of State laws, passed, amended, repealed, or still on the statute book, must be scrupulously examined and carefully collated. The data must be scrutinized with toilsome and persistent honesty, but the horizon must be larger than that of an erudite compiler. Broad-minded and philosophic, the writer must be sensitive to every political breeze and keen to appreciate its source and influence and direction. Peering with the microscope into minutiæ, he must, above all, with the telescope sweep the sky.

Believing that the "history of American democracy . . . is a history of political thought rather than of individuals," he lingers little upon the lives or characters of the apostles of that democracy, and still less upon the lives or characters of its opponents. The mass of the army and the direction of its march count more with him than the personality of the chiefs; yet it is curious to note that in his first volume he refers by name to Washington nine times, to Marshall ten times, and to Hamilton eleven times, while to Franklin twenty-five times, and to Jefferson sixty-six times. This is not indeed disproportionate, for the two latter are the real founders of American democracy. With a sympathy which he makes no effort to hide, he traces the course of democratic government in its expanding and magnificent career.

In sagacious contrast to most historians he recognizes the decisive share which geographic conditions have had in determining our national life. Nowhere have they played a more definite part, not even in Russia or Spain. But how commonly in American histories are they absolutely ignored! Well does he say, "Thus the fate of the republic depended on the course of streams and the trend of mountains as well as on Congress and the legislatures;" or again, "Had gold or silver abounded in New England, Pennsylvania, or Virginia, the evolution of democracy on the Atlantic seaboard would have been retarded for centuries." "The sunny, semi-tropical climate of Florida and South Carolina" and the sturdier climate of Massachusetts and Vermont affect the vision and the formation of political creeds. With reason does he exclaim, "Our morality is much a matter of latitude!"

Through more than a thousand pages does the author interpret American history with accuracy and truth. He renders evident the sublime fact that our national strength and glory are found not in what our fathers brought here in the early days or in what has been wafted to us since across the ocean. It is what they and later generations wrought out here on the virgin soil of this untouched continent that constitutes America's contribution to mankind; nor is the mission of the republic yet accomplished. Still is the region in the western hemisphere between the thirtieth and forty-fifth degrees of north latitude the political laboratory of the world. One cannot but regret that Mr Thorpe concludes his work in

1850. Why, having weighed in the balance two periods which the nation has completed, did he halt before the third period, which the nation had likewise completed? The fourth period, which we are now traversing, is unfinished and its earlier events lack perspective; but that cannot be said of the years between 1850 and 1876. It would have been a privilege to be led through that storm of words and swords and readjustment by so intelligent a guide as Mr Thorpe.

Every page of this "Constitutional History of the American People" commands respect and admiration. One may not always agree with its premises and conclusions. Its dicta sometimes arouse dissent bordering upon resentment; but faithfulness of research, honesty of purpose, and ability of treatment are manifest throughout. The whole is a splendid work, honorable to its scholarly author and sure of a permanent place among the most valuable contributions to American history.

EDWIN A. GROSVENOR.

Amherst College.

GEOGRAPHIC MISCELLANEA

THERE has been a steadily growing demand in the last few years for better teaching of geography, and as earnest an effort on the part of many teachers to meet that demand. THE NATIONAL GEOGRAPHIC MAGAZINE proposes to aid the work by presenting in its pages a series of articles written by those most fitted to speak: able geographers who are also teachers of renown. Prof. Wm. M. Davis, of Harvard, opens this series with an article which appears elsewhere in this number, and which is soon to be followed by a second from him on field and laboratory methods of teaching geography. Commissioner Harris, of the Bureau of Education, will treat the subject in several of its aspects, and a number of other equally prominent educators have promised articles which are to appear in the Magazine within the next few months.

The Association Review is the title of an educational magazine to be published bimonthly during the school year by the American Association to Promote the Teaching of Speech to the Deaf, and edited by Frank W. Booth, the general secretary and treasurer of the association. The first number of the magazine, that for October, is an exceedingly interesting and instructive number, and includes among its contents: "The Teacher and the State," by John M. Tyler; "Kindergarten Work in Schools for the Deaf," by Edward C. Rider; "Pictures and How to Use Them," by Florence C. MacDowell, and a number of briefer papers. An excellent picture of the late Hon. Gardiner G. Hubbard is accompanied by a brief biographical sketch of his great life-work. The number also contains the proceedings of the sixth summer meeting of the association, held in Northampton, Mass., June 22–28, 1899, and includes addresses by Hon. F. B. Sanborn, L. Clark Seelye, LL. D., and the address of the president, Dr Alexander Graham Bell.

The Scottish Geographical Magazine for October is mainly a report of the proceedings of the sixty-ninth annual meeting of the British Association,

which was held at Dover the second week of September. "Oceanography," the title of Sir John Murray's presidential address to the Geographical Section, is published in full and is accompanied by a bathymetrical chart of the ocean showing the "deeps" according to Sir John Murray. From these results it appears that considerably more than half of the sea-floor lies at a depth exceeding 2,000 fathoms. He emphasizes the fact that the recent soundings of the German steamship *Valdivia* in the Atlantic, Indian, and Southern oceans, as well as the many thousands of deep soundings taken within the last decade, have in but few instances caused any very great alteration in the positions of the contour lines on the *Challenger* maps.

THE delegates of the National Geographic Society to the International Geographical Congress in Berlin, on their return to the United States, report the meeting a success in every way. Gen. A. W. Greely, U. S. A., and Mr H. G. Bryant, president of the Philadelphia Geographical Society, were elected honorary vice-presidents of the Congress. The next place of meeting was referred to the executive committee for decision. Gen. Greely presented a number of papers, among which the following may be mentioned: "Geographical Work of the American Commission on the Venezuelan Boundary," by Marcus Baker; "Late Researches by the U. S. Weather Bureau," by H. C. Frankenfield; "Geographical Work of the U. S. Coast and Geodetic Survey," by J. M. Hayward; "Geographical Work of the U. S. Department of Agriculture," by John Hyde; "United States Geological Surveys and Geographical Work," by C. D. Walcott; "Geographical Researches of the U. S. Bureau of Ethnology," by W J McGee. Ambassador Andrew D. White, Major H. T. Allen, U. S. A., Prof. Wm. M. Davis, Miss E. R. Scidmore, Dr L. A. Bauer, and Mr Marcus Baker also represented the National Geographic Society. An account of the proceedings of the Congress will appear in a later number of the Magazine.

A RECENT number of *Nature* contains the following interesting statement: "From the reports in the *Agricultural Journal*, published by the Cape Department of Agriculture, it appears that much success in exterminating locusts by inoculation with the locust disease fungus has been attained in many districts. The fungus is prepared and supplied by the director of the Bacteriological Institute, Graham's Town, at a cost of six pence per tube to all applicants residing in Cape Colony. One of the reports upon its use states that over a hundred locusts which were inoculated with the fungus disease were distributed among a swarm, and on the next morning and the following days large numbers of dead ones were in the sand dunes, being killed by the fungus, as microscopical examination and further experiments with the bodies proved. The growth of fungus from the dead locusts produced a fungus more rapid in growth, but smaller in size, than the government fungus. In another case the fungus was mixed in luke-warm water, and young locusts were released after immersion in the liquid. After three days' rainfall and on the afternoon of the fourth day locusts were found in heaps in the bushes about three miles from where they were immersed. Districts in which no such measures are being taken are much more infested with locusts than those where the fungus treatment is adopted."

THE NATIONAL GEOGRAPHIC SOCIETY

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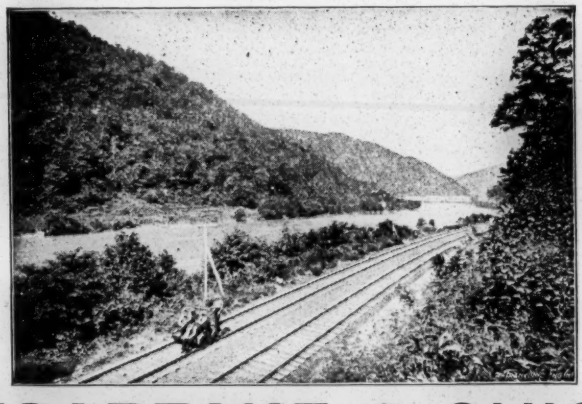

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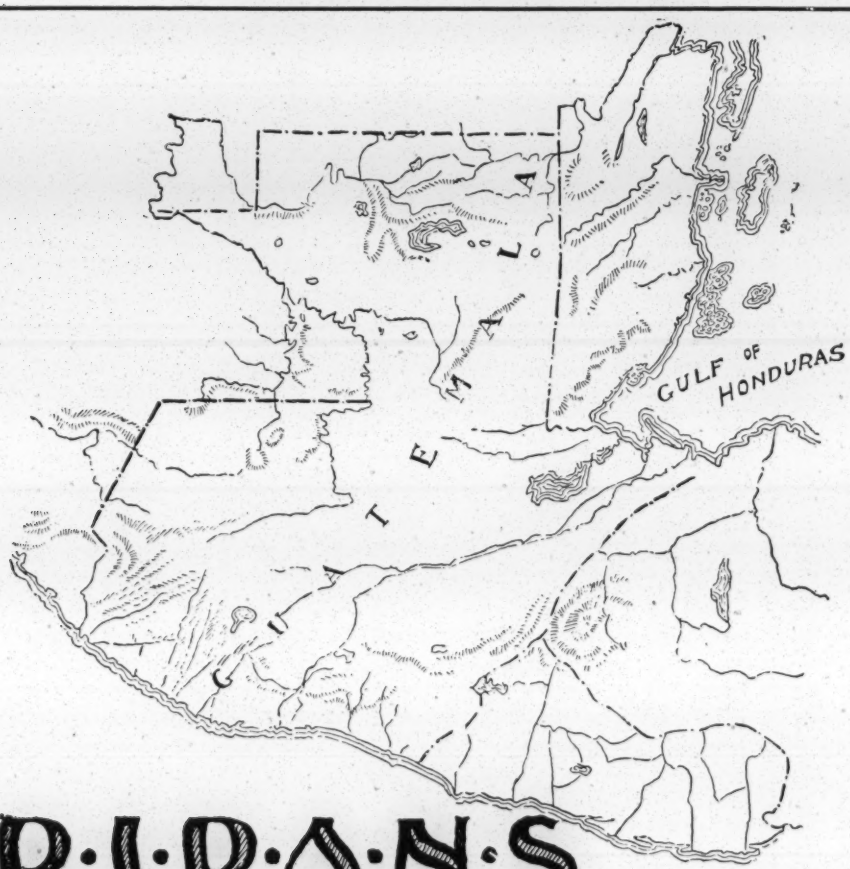

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